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NEW MEXICO ENVIRONMENT DEPARTMENT



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September 30, 2013

LaDonna Turner (6SF-TR)
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RE: Submittal of the Preliminary Assessment Report for the West Central Avenue Plume, Albuquerque, Bernalillo County, New Mexico, CERCLIS ID #NMN000607372

Dear LaDonna:

Enclosed for your review is the Preliminary Assessment (PA) Report for the West Central Avenue Plume (Site), in Albuquerque, Bernalillo County, New Mexico, CERCLIS ID #NMN000607372. The PA was conducted under the authority of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the enclosed document was prepared by Martyne Kieling of the New Mexico Environment Department (NMED) Superfund Oversight Section (SOS).

The Site is a chlorinated solvent ground water plume with no identified source(s) located in a mixed commercial and residential area of downtown Albuquerque near the corner of 9th Street NW and Marquette Avenue NW. The Site was identified when chlorinated solvents were detected in background ground water samples collected from upgradient monitoring wells at the Fruit Avenue Plume Superfund Site (FAP) (EPA ID:NMD986668911) located in downtown Albuquerque, New Mexico

The full extent of the Site plume is not known at this time. Several CERCLA hazardous substances have been observed in samples collected from upgradient monitoring wells at the FAP site. The current understanding of the extent of the Site plume is defined by these upgradient FAP monitoring wells. The Environmental Protection Agency (EPA) oversees the FAP site which is currently in the remedial action (RA) phase of the superfund process. The target compound list for FAP includes tetrachloroethene

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(PCE), trichloroethylene (TCE), vinyl chloride (VC), cis-1,2-dichloroethene (cis-1,2-DCE), and trans-1,2-dichloroethene (trans-1,2-DCE). Currently three of these substances, (TCE), (cis-1,2-DCE), and (trans-1,2-DCE) have been documented in the FAP designated upgradient ground water monitor wells. The FAP upgradient wells are approximately 1,600 to 2,000 feet to the west of the FAP source area. FAP data show that the leading edge of the Site plume overlaps the western portion of the FAP site boundary. The Site plume is present in the I2 and D1 aquifer zones.

Within a four mile radius of the site there are 24 active and 7 inactive Albuquerque Bernalillo County Water Utility Authority (ABCWUA) supply wells. Compliance monitoring of the municipal water supply includes periodic VOC analyses of samples collected from the various supply wells throughout the system. Chlorinated solvents have been detected in some of the samples collected from the ABCWUA wells.

The soil, surface water and air pathways have not been fully investigated as part of this PA because the bulk of existing data pertained to the ground water pathway. Additional evaluation of all pathways may be warranted and indoor air exposure should be investigated with regards to people with residences constructed atop contaminated soil. In order to determine if a potential threat to human health and the environment exists at the Site, NMED SOS recommends that further investigation be performed under CERCLA to determine the source or sources of the TCE and other chlorinated solvents within the plume. NMED SOS also recognizes that monitored natural attenuation is the current recommended action for the FAP Superfund site that is located down gradient and as such may influence the best course of action for this Site.

Please contact me at 505-827-2434 or Martyne Kieling at 505-827-2340 if you have any questions.

Sincerely,

Phyllis Bustanon to Phyllis Bustamante

Manager

Superfund Oversight Section

Enclosure: Preliminary Assessment Report for the West Central Avenue Plume,

Albuquerque, New Mexico, CERCLIS ID #NMN000607372

xc w/o enc: Kathy Gibson, US EPA Region 6 Superfund State Coordinator

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SOS Reading File

PRELIMINARY ASSESSMENT REPORT WEST CENTRAL AVENUE - ALBUQUERQUE CERCLIS # NMN000607372

BERNALILLO COUNTY, NEW MEXICO

September 2013



New Mexico Environment Department Ground Water Quality Bureau Superfund Oversight Section

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1.0 Introduction

Under the authority of the Comprehensive Environmental Response, Compensation and Liability Act,(CERCLA) as amended, 42 United States Code (U.S.C.) §§ 9601 to 9675, the New Mexico Environment Department (NMED) Superfund Oversight Section (SOS) conducted a Preliminary Site Assessment (PA) of West Central Avenue (Site), in the City of Albuquerque, Bernalillo County, New Mexico, CERCLIS ID #NMN000607372. (Figure 1, Figure 2). The objective of the PA is to evaluate the Site using the Hazard Ranking System (HRS) (Ref. 1) and the Superfund Chemical Data Matrix (SCDM) (Ref. 2) to determine if a threat to human health and the environment exists such that further action under CERCLA is warranted. The scope of the investigation included review of available file information.

2.0 Site Information

2.1 Location and Description

The Site is a chlorinated solvent ground water plume with no identified source(s) located in the City of Albuquerque near the corner of 9th Street NW and Marquette Avenue NW (Figure 3) (Ref. 3, Figure 17; Ref. 4; Ref. 5; Ref. 6,). The Site was identified when chlorinated solvents were detected in background ground water samples collected from upgradient monitoring wells at the Fruit Avenue Plume Superfund Site (FAP) (EPA ID:NMD986668911) located in downtown Albuquerque, New Mexico in Township 10N, Range 3E, Section 17 (Ref. 3, pp. 12, 24). The geographical coordinates of the Site are approximately 35°5'19.2' N latitude and 106°39'24.8" W longitude (Ref. 4). The elevation of the Site is approximately 4,954.47 feet above mean sea level (msl), the elevation of the inner casing for the flush mounted well (MW-11D1) (Ref. 3, Attachment 3, p. 43).

The City of Albuquerque occupies an area of 187.73 square miles and has a population of 545,852 (Ref. 6, pp. 1, 2; Ref. 7). The land use in the area surrounding the Site is primarily commercial and residential (Figure 3). During the weather monitoring recording period from 1914 to 2012, the average total precipitation in Albuquerque was 8.65 inches; most of the precipitation occurred from April through October and the average total snowfall was 9.6 inches with most of the snow falling from November through March (Ref. 8). June, July, and August are the hottest months; the average maximum temperatures for these months for the period of record were between 88.9°F and 91.7°F (Ref. 8). December, January, and February are the coldest months with average minimum temperatures for these months for the period of record between 23.6°F and 27.8°F (Ref. 8).

The full extent of the Site plume is not known at this time. Several CERCLA hazardous substances have been observed in samples collected from upgradient monitoring wells at the FAP site. The current understanding of the extent of the Site plume is defined by these upgradient FAP monitoring wells. The Environmental Protection Agency (EPA) oversees the FAP site which is currently in the remedial action (RA) phase of the superfund process. (Ref. 9, pp. 16, 19). The target compound list for FAP includes tetrachloroethene (PCE),

trichloroethylene (TCE), vinyl chloride (VC), cis-1,2-dichloroethene (cis-1,2-DCE), and trans-1,2-dichloroethene (trans-1,2-DCE) (Ref. 9, p. 12). Currently three of these substances, (TCE), (cis-1,2-DCE), and (trans-1,2-DCE) have been documented in the FAP designated upgradient ground water monitor wells (Site plume) (Ref. 9, pp. 14, 19; Ref. 9, Appendix D, pp. 36, 37, 42). The FAP upgradient wells are approximately 1,600 to 2,000 feet to the west of the FAP source area (Figure 3) (Ref. 3, p. 34). FAP data show that the leading edge of the Site plume overlaps the western portion of the FAP site boundary (Ref. 9, p. 16). The Site plume is present in the I2 and D1 aquifer zones. These zones are further defined in section 3.2.2 of this report (Ref. 9, p. 19).

2.2 Operational History and Ownership

The Second Quarter 2005 Ground Water Sampling Event Summary and Well Installation Report: Version 1.1, Fruit Avenue Plume Superfund Site (2005 FAP investigation) included an upgradient source investigation. Sixteen historic businesses at fourteen physical locations were identified as potential sources for the chlorinated solvent plume upgradient of the FAP plume (Ref. 3, pp. 12-14, and Table 7). Research included a records search, site reconnaissance, and interviews with NMED regulators. The records search was conducted by Environmental Data Resources Inc. (EDR) (Ref. 3, Attachment 10, pp. 659-810). This records search met the ASTM E 1527 Phase I Environmental Site Assessment Standard (ASTM, 2000) and the upcoming "All Appropriate Inquiry" rule put forth by EPA.

Of the sixteen businesses identified, three have been investigated: The Former Bell Trading Post has been investigated by NMED Voluntary Remediation Program (VRP), Thriftway and World Motel have been investigated by NMED Petroleum Storage Tank Bureau (PSTB). In addition to these two sites identified in the 2005 FAP Investigation, PSTB has also reviewed information on Arts Transmission and the Downtown Inn. Of the investigated sites, only the Former Bell Trading Post exhibited evidence of chlorinated solvent contamination (Ref. 3, p. 18; Ref. 10, p. 15). There are no records of environmental investigations for the remaining thirteen businesses identified as potential sources. The potential sources are listed in Table 3, and are further described in the sections below (Ref. 3, pp. 12-14, 32).

2.2.1 The Former Bell Trading Post

The Former Bell Trading Post property (1503 Central Ave. NW) was investigated by the NMED VRP under the authority of Voluntary Remediation Act, Sections 74-4G1 et seq. NMSA 1978 and the New Mexico Voluntary Remediation Regulations (20 NMAC 6.3) from 1994-2005. (Ref. 11, pp. 1, 3, 10).

The Former Bell Trading Post property site originally housed an Indian jewelry manufacturing business from 1947 to 1975 (Ref. 3, p. 3, 13). The jewelry business site moved to the Sun Bell site at the intersection of Lomas and Central and is now located on the west side of the city (Ref. 3, p. 13). The business, currently called The Bell Group, distributes jewelry and supplies under

the Rio Grande brand name (Ref. 3, p. 13). The Bell Group used TCE for degreasing their products and reportedly did have a release at the Lomas and Central location. Th1503 Central Ave. location was then occupied by the Albuquerque Photo Lab from 1982 until 1984 and then Michelson Metals offices, non-industrial use from 1985 until 1992 (Ref. 10, p. 3).

The buildings have been developed into "affordable housing" as defined by the U.S Department of Housing and Urban Development (Ref. 12, P. 1). In 2008 the former Bell Trading Post building was renovated and now contains 15 home units (Ref. 13, p. 1)

2.2.2 Vicinity Underground Storage Tank Sites

Thriftway (Abandoned Plateau Service Station), and Bulk Oil Station

The Thriftway site (1720 Central Ave. SW) has been investigated by the NMED PSTB under the authority of New Mexico Environment Department PSTB Regulation (20 NMAC 5.2) the investigation has been on going from 1995 to present. The Bulk Oil Station (1720/1722 Central Ave. SW), identified on the 1942 Sanborn maps, was located on the same property as the Thriftway (Abandoned Plateau) (Ref. 3, p. 32). Prior to 1946 the site was operated by Hedges Oil Company as a gas service station (Ref. 14, p. 1).

In 1946, Horn Investments (Horn) acquired the property. Horn remodeled the site and removed the original underground storage tanks (UST's) replacing them with new coated UST's. The gas service station and auto repair shop was then operated until 1977 by Horn when it was then leased to Plateau Inc. Plateau operated the gas service station and auto repair until 1983 when it was closed. All ancillary equipment was removed shortly after closure and reports document that equipment was in sound condition upon removal. In 1995 Horn managed the site as a rental property to a bicycle repair and modification shop (Ref. 14, p. 1).

This site was listed as a potential source because of the nature of the businesses that operated on site. There are monitor wells onsite and in the City of Albuquerque right-of-way. Benzene, toluene, ethylbenzene, and xylenes (BTEX), Total Petroleum Hydrocarbon (TPH), and manganese are chemicals of potential concern (COPCs). However, the ground water was not analyzed for chlorinated solvents during the investigation. The upgradient monitor well at this location is clean (Ref. 3, p.13-14; Ref.14, p. 23, 24).

World Motel (Rural Court)

In March 1992 two 1,000 gallon USTs were removed from The World Motel site (1721 Central Ave. NW) and subsequently investigated in response to the evidence of a release of petroleum hydrocarbon fuels that was visible at the time of removal of the tanks (Ref. Error! Bookmark not defined., p. 1). This site formerly housed a filling station that contained two USTs that were abandoned in-place and filled with sand approximately 20 years prior to the 1992 investigation (Ref. Error! Bookmark not defined., p. 1). In 1993 the motel and automobile service station were demolished and a parking facility for the Manzano Day School was constructed (Ref. Error! Bookmark not defined., p. 1). Based on the results of the Minimum Site Assessment (MSA) and Phase I studies at this site, the Albuquerque Environmental Health Department (AEHD) and NMED required quarterly sampling and Analysis of the six installed monitoring

wells and the irrigation well at Manzano Day School (Ref. Error! Bookmark not defined., P.2). Releases to the ground water at the World Court Motel consisted of benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl-t-butyl ether (MTBE) and total petroleum hydrocarbon (TPH), are chemicals of potential concern (COPC's) (Ref. Error! Bookmark not defined., pp. 9, 11). A small subset of chlorinated solvents and compounds, 1,2-dibromoethane (EDB), 1,2-dichloroethane (EDC), methylene chloride, 1,1,1 trichloroethane, and 1,1,2,2 trichloreoethane, were tested for and were not detected in the six site ground water monitor wells (Ref. Error! Bookmark not defined., p. 11). There was no indication of chlorinated solvent contamination and all petroleum related contamination was determined to originate from the Thriftway site across the street (Ref. 3, p. 14). In 2005 a determination of No Further Action (NFA) was issued by the PSTB (Ref. 15, p. 1). This site was listed as a potential source because of the nature of the business that operated on site.

Arts Transmission

Arts Transmission (1115 Central Ave. NW) was investigated by the NMED PSTB under the authority of New Mexico Environment Department PSTB Regulation (20 NMAC 5.2) in 1990 to 1991 (Table 3) (Ref. 16, pp. 1-16). The tanks at this location, two-1000 gallon and one-500 gallon, were installed in 1966 and were in service until 1973 (Ref. 16, pp. 2, 3, 11). No documented release occurred at this site (Ref. 16, pp. 7, 8, 9, 11). The site was identified as a potential source based on the nature of the business that operated on site.

The Downtown Inn

The Downtown Inn (1213 Central Ave. NW) (Table 3) tank closure was reviewed by the NMED PSTB under the authority of New Mexico Environment Department PSTB Regulation (20 NMAC 5.2). Three 4,000 gallon gasoline tanks were installed in 1940 and taken out of service in 1968 (Ref. 17, pp.1,3, 5). The tanks showed no evidence of leakage and were removed from this location in August of 2004 (Ref. 17, pp. 3, 5). The site was identified as a potential source based on the nature of the business that operated on site. There has been no investigation at this location.

2.2.3 Potential Source Properties Identified but not Investigated

Washtub Laundry, The Neighbors Laundromat, Marina's Dry Cleaners

These three sites; Washtub Laundry (1105 Central Ave. NW), The Neighbors Laundromat (1433 Central Ave. NW), and Marina's Dry Cleaners (1837 central Ave. NW) were identified through a combination of site walks and the city directory. The two laundries were identified during a site walk in 2005 and one dry cleaners that appeared in the city directories in 1962 and 1973 (Table 3) (Ref. 3, pp. 14, 32.). These sites were identified as a potential sources based on the nature of the businesses that operated on site and chemicals that are typically used. There has been no investigation at these sites.

Used Auto Sales, Central Paint and Body, Filling Station Auto Repair, and Kelly's Transmission Exchange.

These four sites are located along Central Avenue; Used Auto Sales (1600 Central Ave. SW), Central Paint and Body (1710 central Ave. SW), Filling Station Auto Repair (1712/1716 Central

Ave. SW), and Kelly's Transmission Exchange (1816 Central Ave. SW). The auto repair and machine shops were identified through a combination of data base search, Sanborn maps and a site walk in 2005, Table 3 lists the sites and data source (Ref. 3, pp. 14, 32.). These sites were identified as a potential sources based on the nature of the business that operated on site. There has been no investigation at these sites.

Esco-Bio Chemicals Co. Inc. and Electronics TV Laboratory

One location, Esco-Bio Chemicals Co. Inc (1406 Central Ave. SW) was in the city directory from 1962 through 1968 (Table 3). The same location, according to the 1973 city directory, then housed an Electronics TV Laboratory (Table 3) (Ref. 3, pp. 1, 32). The site was identified as a potential source based on the nature of the businesses that operated on site. There has been no investigation at this location.

Trader Duke's Corp. (Jewelry Manufacture)

A jewelry manufacturing business, Trader Duke's Corp (1408 Central Ave SW) was identified in three instances of the city directory search 1973, 1978 and 1983 (Table 3) (Ref. 3, pp. 14, 32). The site was identified as a potential source based on the nature of the business that operated on site. There has been no investigation at this location.

2.3 Regulatory History and Previous Environmental Investigation

2.3.1 CERCLA Regulatory and Environmental Investigation

In 2011, NMED SOS conducted a Pre-CERCLIS screening assessment of the Site based on the identification of TCE, Trans-1,2-DCE and Cis-1,2-DCE in ground water in up-gradient background FAP monitor wells (Ref. 18, pp. 1, 3, 4). The NMED recommended further investigation and sampling in the Pre-CERCLIS screening document (Ref. 18, pp. 1, 2, 6). A site discovery form was submitted by the NMED to the US EPA in March of 2013 (Ref. 19, pp. 1-2).

In 2005, ground water monitoring for the FAP site was expanded to include additional upgradient wells MNW-11 (I1, I2, D1 and D2) and MNW-12 (I1, I2, D1 and D2). (Ref. 3, p. 2). These wells are sampled according to the FAP sampling schedule. In addition to these two borehole sets of wells there are three additional wells MNW-9 (I1, I2, D1 and D2), SFMW-14 (D-1), and MNW-1 (I2) that are upgradient of the FAP site that have been sampled and consistently shown chlorinated solvents (Ref. 9, pp. 36, 37, 42, 43). The chlorinated solvents TCE, cis-1,2-DCE, and trans-1,2-DCE have been identified in the upgradient ground water samples (Ref. 9, pp. 36, 37, 42, 43). In 2005, the FAP report concluded that an additional upgradient source was responsible for the distribution of TCE in the ground water west of the FAP site (Ref. 3, pp. 9, 12). The TCE plume in the West Central Avenue area, now designated as the Site, has continued to be documented through the second quarter of 2012 FAP sampling and is present in the Intermediate-2 and Deep-1 aquifer zones (Ref. 9, p. 19 and 33). For additional information regarding the nomenclature for the local aquifer zones refer to Section 3.2.2.

Ground water data from upgradient monitor wells at the FAP site goes back to 1997 (Table 2) (Ref. 9, Table 3-5). Semi-annual sampling has taken place for most of the upgradient monitor wells from 2005 to present (Ref. 9, Table 3-5). During all of these sampling events ground water was sampled for volatile organic compounds (VOC's) and the target compound list (TCL) that includes PCE, TCE, cis-1,2-DCE, Trans-1,2,-DCE and VC (Ref. 9, p. 12). In addition, geologic and hydrologic information has been collected from boreholes that have been drilled during the investigation of the FAP site (Ref. 20, p. 7).

As recognized in the FAP 2005 quarterly report and the 2012 annual report there is an up gradient off site TCE plume (the Site plume) located west of the FAP site within the I2 and D1 aquifer zones (Ref. 3, p. 19; Ref. 9, p. 19). The recommendation in 2005 was for continued long term ground water monitoring of the FAP to determine whether this contamination will be addressed by either of the FAP site remedies, pump and treat (P&T) or monitored natural attenuation (MNA) (Ref. 3, p. 19). The NMED recommended further investigation and sampling in the Pre-CERCLIS screening document (Ref. 18, pp. 1, 2, and 6). This preliminary assessment with FAP sample data is prepared in response to the recommendations.

2.3.2 VRP Regulatory and Environmental Investigation

The NMED first identified the presence of chlorinated solvents within the soil vapor and ground water during a sampling event conducted in 2001 for the NMED VRP Phase II Site Characterization of the Former Bell Trading Post property located at 1503 Central Avenue NW (Ref. 10, pp. 14, 15, 19 and 20). The Bell Trading Post was a jewelry manufacture from 1974 to 1975, the Albuquerque Photo Lab from 1982-1984, and an office for Michelson Metals from 1985 to 1992 (Ref. 10, p. 3). In 2005, chlorinated solvents were detected in background ground water samples collected from up-gradient background monitoring wells at the FAP site (Ref. 3, pp. 12, 18, 19, 183-197).

The Bell Group used TCE for degreasing their products and reportedly did have a release at the Lomas and Central location (Ref. 10 p. 20). An investigation of the Former Bell Trading Post property is documented in the Phase II Site Characterization Report (Ref 10). According to this report, soil, ground water, and soil gas at this site were examined as part of the site characterization activities that took place in 2001. All samples were analyzed for metals, cyanide, and VOCs, and underwent Photoionization Detector (PID) field screening (Ref. 10, pp. 12-17).

- Four ground water samples were collected via Geoprobe® from the ground water table at about 23 feet bgs. One of these ground water samples and its field duplicate contained TCE at 1.5 μg/L. (Ref. 10, [Table 2.6] p. 15; Ref. 10, pp. 33, 35).
- Six of twelve soil gas samples contained TCE at concentrations from 0.2 (μ g/L) to 3.4 μ g/L. (Ref.10, [Table 2.5] p. 15; Ref.10, pp. 31 and 36-40). There is a typographical error in Table 2.5 of the report the units are shown as mg/L whereas in fact they are μ g/L (Ref. 10, pp. 31 and 36-40).

- Ten of the twelve soil gas samples had elevated PID field screening results (Ref.10, [Table 2.4] p. 14; Ref.10, pp. 42-53). and
- The Phase II Site Characterization Report (NMED, 2001) concluded that "there was a release of chlorinated solvents at this site in the past." (Ref. 10, p. 20).

In 2005 the Voluntary Remediation Completion Report for the former Bell Trading Post Facility recognized that there had been an indication of a possible historical release of chlorinated Solvents (Ref. 12, p. 6). A determination was made that the analytical results for the ground water samples were inconclusive, and did not exceed the NMWQCC standards or indicate impact to the site by petroleum hydrocarbons (Ref. 12, p. 6). The report concluded that no further environmental remediation at the site was needed (Ref. 12, p. 24). The site was issued an Affidavit of Completion of Voluntary Remediation on October 7, 2005.(Ref. 21, pp.1-2).

2.3.3 PSTB Regulatory and Environmental Investigation

Corrective Action Investigations by NMED PSTB under (20 NMAC 5.2), have been performed at two locations in the vicinity. One was the Thriftway (former Plateau Service Station) at 1720 Central Ave. SW, which housed a filling station and auto repair shop (Ref. 3, p. 13). The second, The World Court Motel at 1721 Central Ave. NW formerly housed a filling station (Ref. 3, p. 14). The World Court Motel has received a determination of No Further Action (NFA) by the PSTB in 2005 (Ref. 3, p. 14; Ref. 15, p.1). Additional regulatory oversight in the area was performed by the NMED PSTB with UST removals and site investigations at Arts Transmission (1115 Central Ave. NW) and The Downtown Inn (1213 Central Ave. NW) (Ref 3, p. 32; Ref. 12; Ref. 16; Ref. 17).

Additional geologic and ground water data has been gathered from the PSTB managed Thriftway (former Plateau Station) and World Court Motel sites (Ref. 14, pp. 16, 18, 19, 21, 24, 25; Ref. Error! Bookmark not defined., pp. 9, 11, 12, 14, 15). In 1995 five soil test borings of which three were completed as a ground water monitoring wells were installed at the Thriftway (former Plateau Station) (Ref. 14, pp.16, 21). The World Court Motel had shallow geologic and ground water information from six installed monitoring wells and one down gradient irrigation well at the Manzano Day School from quarterly reports issued from 1993 until 2004 when the site received NFA status (Ref. Error! Bookmark not defined., p. 2; Ref. 15, p. 1). The Manzano Day School, irrigation well was completed in 1957 and the depth to ground water at that time was 13 feet bgs (Ref. 14, p. 6).

3.0 Site Investigation

3.1 Source/Waste Characteristics

The Site is characterized as a ground water plume of chlorinated solvents with no identified source(s). Chlorinated solvent compounds have been found in the ground water monitoring

wells at concentrations above state ground water quality standards, federal drinking water standards, or health-based benchmarks.

TCE is used primarily in vapor degreasing of fabricated metal parts and some textiles. Less commonly, it is used as an intermediate in the production of organic chemicals and pharmaceuticals, as solvents in dry cleaning and extraction, and as a refrigerant/heat exchange liquid. Major environmental releases are from metal degreasing (Ref. 22, p. 1). TCE is also a degradation product of PCE, while cis-1,2 DCE and trans-1,2-DCE are degradation products of TCE (Ref. 23, p. 1, 2).

3.1.1 Source Waste Characterization Methods and Results Description

Substances found in the ground water at levels above state ground water standards, federal drinking water standards, or health-based benchmarks include VOCs: TCE, cis-1,2-DCE, and trans-1,2-DCE; (Table 1 and Table 2) (Ref. 9, Appendix D, pp. 2, 3, 8, 9; and Table 3-5). Because this Site is a ground water plume with no identified source, descriptions of the methods used are given in Section 3.2.5 Ground Water Investigation Methods.

3.2 Ground Water Pathway

The ground water pathway assesses the threat to human health and the environment by determining whether hazardous substances are likely to have been released to ground water and whether any receptors (drinking water wells, wellhead protection areas, resources) are likely to be exposed to hazardous substances as a result of a release.

3.2.1 Regional Hydrogeology

The Site is located in the central portion of the Albuquerque Basin. This Basin is one of the largest of the southerly-trending series of grabens that form the Rio Grande Drainage Basin. The Rio Grande Drainage Basin was formed in response to the Rio Grande Rift. The Rio Grande Rift is a northerly to southerly trending, down-dropped crustal extension that originates in Colorado and extends southward for more than 600 miles across New Mexico to south of the Mexico/Texas border (Ref. 10, p. 4).

The Albuquerque Basin is filled with up to 10,000 feet of clastic sediments. These sedimentary deposits are of two types: 1) sediment that has filled the subsiding trough and 2) floodplain deposits, terraces, dunes, alluvial fans and cones, spring deposits, caliche blankets, landslides, and some pediments. The latter group of deposits represents process of erosion and deposition that may have prevailed thought subsidence and filling of the basin. The Santa Fe Formation sediments fill the majority of the basin. (Ref. 10, p. 4)

The Tertiary and Quaternary Santa Fe Formation is composed of unconsolidated to loosely consolidated gravels, sands, silts, and clays. The thickness of this unit ranges from 2,400 feet on the basin margins to 14,000 feet along the axis of the basin. In the vicinity of the Site, the

thickness of this formation is approximately 4,700 feet. The Santa Fe Group is overlain by Quaternary Rio Grande Alluvium sediments, which have a similar facies distribution. These post-Santa Fe, Rio Grande Alluvium deposits are alluvial fan and floodplain deposits and are up to 200 feet thick. (Ref. 10, p. 4). The Santa Fe Group and Rio Grande Alluvium deposits are the principal water bearing units in the vicinity of the Site and are hydraulically connected (Ref.10, p. 4).

Historically ground water in the Albuquerque Basin flowed toward the southwest toward the Rio Grande (Ref. 10, p.5). Ground water beneath the Site currently flows in an easterly direction. In a ground water study was performed by Kernodle in 1995 where the City-wide ground water contours from 1992 and simulated 1994 hydraulic head levels reflect a large cone of depression developing on the eastern side of Albuquerque as a result of ground water withdrawal (Ref. 10, p. 5). The Kernodle study supports the conclusion that this cone of depression may have influenced the ground water flow direction beneath the Site (Ref. 10, p. 5).

3.2.2 Site Hydrogeology

The Site hydrogeology is expected to be similar to that described for the FAP site. The Site is located in the central portion of the Albuquerque Basin, a geologic feature filled with unconsolidated to loosely consolidated gravel, sand, silt, and clay. The ground surface near the Site slopes from the east to the west toward the Rio Grande located just over one mile west-southwest of the Site (Ref. 24, p. 23; Ref. 5).

The river deposits identified as the axial Rio Grande facies that underlie the Site consist of well-sorted coarse sand to gravel separated by silty and clayey fine sands. These strata have been divided into seven aquifer zones, differentiated based on geologic and hydraulic characteristics. The uppermost water-bearing zone (shallow aquifer zone) is present approximately 40 feet below ground surface (bgs) beneath the western portion of the FAP Site west of the railroad tracks (Ref. 24, p. 23). Depth to the shallow aquifer zone west of WCA Site at the Former Bell Trading Post property is approximately 20-21 feet bgs (Ref. 10, pp. 42, 44, 53).

The FAP aquifer zones are based on depth bgs to aid delineating vertical contamination at the Site. The aquifer zones are based primarily on depths of existing monitoring and water supply wells. The bottom of the intermediate zone was selected to correspond with a clay unit found in the FAP DM-13 monitoring well cluster. The Bottom of the D2 zone was selected to correspond with a clay unit observed in the SFMW-22, 23, 35, and 36 monitoring well clusters. Neither of these clay units is laterally continuous across the area of impacted ground water but they are localized conditions are around the referenced monitoring well clusters and may cause localized impediment to vertical contaminant migration. Laterally continuous clay layers have not been identified. Three aquifer zones at FAP are defined by NMED as follows (Ref. 20, p. 11).

The ground water within the Albuquerque Basin at the Site has been described in detail in conjunction with the FAP area. The following three aquifer zones, shallow, intermediate, and deep are defined by NMED as follows (Ref. 20, p. 11).

- Shallow (S) wells with screen midpoint elevations at 4,894 feet above mean sea level (amsl) or higher; these shallow wells are typically completed across the water table at about 40 feet bgs; (Table 4) (Ref. 20, p. 11).
- Intermediate (I) wells with screen midpoint elevations between 4,894 and 4,834 feet amsl (roughly 60 to 120 feet deep); this zone has been subdivided into I1 (approximately 60 to 85 feet deep; 4,893 to 4,868 feet amsl) and I2 (86 to 120 feet deep; 4,868 to 4,834 feet amsl) categories (Table 4); (Ref. 20, p. 11). and
- Deep (D) wells having screen midpoint elevations at or below 4,834 feet amsl (generally completed below 120 feet) (NMED, 1999a). The deep zone has been further subdivided into four zones: D1 (generally 120 to 150 feet deep; 4,834 to 4,804 feet amsl); D2 (ranges from about 150 to 250 feet deep; 4,804 to 4,704 feet amsl); D3 (approximately 250 to 350 feet deep; 4,704 to 4,604 feet amsl); and D4 (350 feet and deeper; <4,604 feet amsl) (NMED, 1999a) (Table 4) (Ref. 20, p. 11).

At the Site, the depth to the shallow ground water beneath the former Bell Avenue Trading Post location was detected at 20 to 21 feet bgs during the 2001 Phase II investigation (Ref. 10, pp. 42, 44, 53). Ground water elevation data as of August 2012 within the Site Monitor wells that were originally installed as FAP upgradient wells are as follows.

- I1 zone water level was at 4930.50 and 4932.76 feet amsl for MNW-9(I1) and MNW-12(I1), respectively (Ref. 9, pp. 28, 29);
- I2 zone water level was at 4928.54 and 4932.71 feet amsl for MNW-1(I2) and MNW-12 (I2), respectively (Ref. 9, pp. 28, 29);
- D1 zone water level was at 4926.02 and 4932.75 feet amsl for SFMW-14 (D1) and NMW-12(D1), respectively (Ref. 9, pp. 28, 29); and
- D2 zone water level was at 4930.64 and 4932.71 feet amsl for MNW-9(D2) and MNW-12(D2), respectively (Ref. 9, pp. 28, 29).

Well screen intervals for each of the above wells are listed in Reference 3, (Ref 3, p. 25). All of the monitoring wells and boreholes drilled in the vicinity of the Site are within Quaternary Rio Grande Alluvium sediments, and the underlying Santa Fe Group. The ground water flows generally in an east-northeast direction in the shallow and intermediate zones and easterly in the deep zone at the site with a horizontal hydraulic gradient in the 2012 data for FAP area ranging from 0.0006 foot per foot (ft/ft) in the D4 aquifer zone (SMFW-34 to MNW-7) up to 0.0184 ft/ft in the I2 aquifer zone in (SFMW-21 to SFMW-31). (Ref. 9, p. 13). At the time of the Plateau Service Station investigation, September 1995, the shallow ground water flow at that location was toward the east-northeast (Ref. 14, p. 16, 21).

From the Site ground water generally flows eastward across the FAP site toward the main regional ground water extraction centers on the eastern side of the Rio Grande related to the

Albuquerque Bernalillo County Water Utility Authority (ABCWUA) and the University of New Mexico (UNM) well fields. The natural ground water horizontal flow gradient in the Albuquerque Basin would have originally been westward toward the Rio Grande. However, reversal of this gradient, with ground water flow increasingly shifting toward the east began when the original ABCWUA well fields were installed just south and east of the Site in the early 1900s (Ref. 24, p. 23). This general west to east-northeast flow direction has also been noted in the shallow aquifer at the Thriftway (Former Plateau Station) (Ref. 13, p. 16, 21)

Vertical ground water flow gradients are negligible in the western half of the FAP site west of the railroad tracks (Ref. 24, p. 23). Near the railroad tracks there is an apparent fault or geologic barrier to ground water flow that causes an increase in the horizontal and vertical flow gradient (Ref. 9, p. 19).

Ground water elevations also fluctuate seasonally within each of the aquifer zones in response to natural variations in recharge from rain and snowmelt and the with the pumping of water supply wells (Ref. 9, p. 19). Seasonal ground water elevation variations increase in the D1–D4 aquifer zones with D4 showing the greatest seasonal change (Ref. 9, p. 19). With the increase in surface water usage from the San Juan-Chama project there has been evidence of ground water elevations rising in FAP site monitor well locations within aquifer zones S, I1 and I2 (Ref. 9, p. 19). The concern is that this rise in ground water elevation will cause a mobilization of sorbed contaminants present in the capillary fringe portion of the shallow aquifer zone (Ref. 9, p. 19).

The ABCWUA ground water production well field that draws water from the Site area are located south-southeast of the Site, see the 4 mile radius map Figure 5 for the location of all production wells (Ref. 24, p. 23). No report reviewed indicated that karst aquifers exist in the area.

3.2.3 Ground Water Use

Ground water in the Albuquerque area is used for drinking water, irrigation, and various businesses including commercial service, commercial retail, industrial and manufacturing, wholesale and warehousing, and public institutional, with some residential properties (Ref. 25, p. 20). The ground water in the Albuquerque Basin is one of two sources of drinking water for the City of Albuquerque. In late 2008, the San Juan Chama Drinking Water Project (SJC) was added as another source (surface water) for the drinking water supply (Ref. 24, p. 20; Ref. 25, p. 1). This new source was expected to provide more than 40 percent of the Albuquerque and Bernalillo County drinking water supply (Ref. 24, p. 20). The ABCWUA has a total of 114 wells of which 87 are active municipal supply wells and the additional (SJC) surface water source that serves approximately 601,983 people with 175,386 service connections (Ref. 26, pp. 1-6). The ABCWUA wells can be blended in an infinite number of ways as well as mixed with the SJC surface water source (Ref. 27, p. 1; Ref. 28, p. 1). The ABCWUA is regulated by its New Mexico Office of the State Engineers (OSE) permit requirements and therefor is limited to the amount of SJC surface water that can be used annually (Ref. 27, p. 1). With the drought status that is in affect the ABCWUA is allowed only 5 months of water from the SJC surface water source, and currently is not receiving or blending any surface water into the drinking water system (Ref. 27, p. 1). There are 24 active municipal supply wells within a four mile radius of the Site (Table 5 and Figure 5) (Ref. 25, pp. 1-4). None of these wells are located within the current Site plume boundaries. ABCWUA serves 601,983 people on a blended system that under current conservative calculations is fed 100 percent by ground water source (Ref. 26, p. 1; Ref. 27, p.1; Ref. 28, p. 1), therefor the 24 wells within a 4 mile radius of the site serve approximately 601,983*24/87 = 166,064 people. The available 2007 ABCWUA sanitary report based on 1999 and 2002 data was reviewed for this PA and is included as a reference (Ref. 29; pp. 1-96), however more up-to-date information was obtained from the following references (Ref. 24, 25, 26, 27, 28) and therefor was used instead.

There are 3 mobile home park wells that were identified from the OSE data base within the four mile radius, however, they are not listed as active wells in the NM Waters Database and thus were not counted (Ref. 30, pp. 1-22.).

In addition to the ABCWUA, the University of New Mexico has one active water supply well within a four mile radius of the Site (Table 5, Figure 5) (Ref. 30, pp. 1-22). The potable supply well services a population of approximately 35,000 people on campus (Ref. 31, p. 1). The (OSE) database identified 8 additional school wells within the four mile radius, however, they are not listed as active wells in the NM Waters database and thus were not counted (Ref. 30, pp. 1-22.).

Within a four mile radius of the Site, there are 1260 domestic wells and 14 multiple domestic wells that were identified from the Office of the State Engineers (OSE) data base (Ref. 30, pp. 1-22.). The OSE list and Figure 5 shows all domestic well permits issued within a four mile radius of the Site, whether a well log with completion date was submitted to OSE or not. The average household size in the city of Albuquerque is 2.42 (Ref. 7, p. 1). Therefore the 1274 total domestic wells have the potential to serve approximately 1274*2.42 = 3,083 people. The number for active domestic wells in the four mile survey area will need further verification

The total number of people served by ground water in a four mile radius of the Site is approximately 166,064 + 35,000 + 3,083 = 204,147. Table 5 shows a breakdown of the number of municipal, public and private wells within target distances of 0.5 miles, 1 mile, 2 miles, 3 miles and 4 miles. (Ref. 30, pp. 1-22.).

3.2.4 Local Ground Water Quality

Fruit Avenue Plume Up-gradient Monitor Well

The Plume is not fully defined but is known to be 1480 feet by 1160 feet and is found within the I1, I2 D1 and D2 aquifer zones (Figure 7, Figure 8, Figure 9) and (Ref. 9, Figures 3-15, 3-16, 3-17). CERCLA hazardous substances that occur in ground water at the Site above state ground water standards, federal drinking water standards, or health based benchmarks include TCE. This substance has been observed in six monitoring wells including MWW-1(I2), MNW9(I2), MNW9(D1), MNW-11(D1), MNW-12(I1), SFMW-14(D1) (Table 2) (Ref.9, pp. 36, 37, 42, 43, and 59-68). Other VOC's found in the ground water include: cis-1,2-DCE, and trans-1,2-DCE; (Table 1 and Table 2) (Ref.9, pp. 36, 37, 42, 43, and 59-68). Data results from the 2012 FAP upgradient wells are summarized below.

In 2012, TCE was detected in the I1 aquifer zone in monitor well MNW-12 at 0.75 micrograms per liter (μ g/L). The I2 aquifer zone contained TCE between 4.5 μ g/L to 17 μ g/L in MNW9(I2) and MNW-1(I2), respectively. The D1 aquifer zone contained the highest detections of TCE at 2.3 μ g/L to 46.0 μ g/L in monitor wells MNW-9(D1) and MNW-11(D1), respectively. The EPA MCL is 5 μ g/L and the NM WQCC Standard is 100 μ g/L for TCE. MNW-12(D1) contained an estimated value of TCE at 0.25 μ g/L and was below the contract required quantitation limit (CRQL). The D2 aquifer zone contained TCE in only one well MNW-11(D2) ranging from an estimated value of 0.097 μ g/L to 0.15 μ g/L, below the CRQL (See Table 2) (Ref.9, pp. 36, 37, 42, 43, and 59-68).

In 2012, cis-1,2-DCE was detected in the I1 aquifer zone in monitor well MNW-12(I1) at an estimated value of 0.49 μ g/L which was below the contract required quantitation limit. The I2 aquifer zone contained cis-1,2-DCE between 1.5 μ g/L to 3.4 μ g/L in MNW9(I2) and MNW-1(I2), respectively. The D1 aquifer zone had the highest detections of cis-1,2-DCE, the detections were between 0.57 μ g/L to 11 μ g/L in monitor wells MNW-9(D1) and MNW-11(D1), respectively. The EPA MCL is 70 μ g/L and the NM WQCC Standard is $1x10^6$ risk for cis-1,2-DCE. SFMW-14(D1) contained 0.58 to 0.84 μ g/L of cis-1,2-DCE (See Table 2) (Ref.9, pp. 36, 37, 42, 43, and 59-68).

In 2012, trans-1,2-DCE was detected in the I2 aquifer zone at concentrations ranging from 0.25 μ g/L and 0.29 μ g/L in monitor wells MNW9(I2) and MNW-1(I2), respectively. However, these results were estimates and were both below the QRCL. The D1 aquifer zone had the highest detections of trans-1,2-DCE, the detections ranged from 0.53 μ g/L to 5.6 μ g/L in monitor wells MNW-9(D1) and MNW-11(D1), respectively. The EPA MCL is 100 μ g/L for trans-1,2-DCE there is no standard under NM WQCC. SFMW-14(D1) contained trans-1,2-DCE at an estimated levels ranging from 0.14 μ g/L to 0.24 μ g/L, below the CRQL (See Table 2) (Ref.9, pp. 36, 37, 42, 43, and 59-68).

Monitor wells MNW-9(I2) and MNW-9 (D1) and SFMW-14(D1) contained PCE at concentrations of 0.032 μ g/L, 0.048 μ g/L, and 0.062 μ g/L, respectively. However, those concentrations were estimated and below the CRQL (See Table 2). The EPA MCL is 5 μ g/L and the NM WQCC Standard is 20 μ g/L for PCE (Ref.9, pp. 36, 37, 42, 43, and 59-68).

The area of the plume, as defined by these monitoring wells, is approximately 1,716,800 square feet ($1480 \times 1160 = 1,716,800$) based on ground water sampling results from the 2012 Annual GW Sampling Report for the FAP site (Ref. 9). The shallowest ground water table depth with known contamination is 21.58 feet bgs and the bottom of the lowest screen of these wells is 166 feet bgs; therefore, the minimum height of contamination is 144.42 feet (166 - 21.58 = 144.42) (Ref. 9, Table 2-1 and Table 2-2). The minimum plume volume is 247,940,256 cubic feet (144.42 feet x 1,716,800 square feet = 247,940,256 cubic feet). The total vertical and horizontal extent of contamination was not determined during this study.

Municipal Water Supply

Within the four mile radius of the site there are 24 active and 7 inactive ABCWUA supply wells (Figure 5) (Ref. 26, pp. 1-4). Compliance monitoring of the municipal water supply includes periodic VOC analyses from samples collected from the various supply wells throughout the

system. The NM Drinking Water system details for the ABCWUA wells were reviewed for VOC's including TCE from January 2005 through January 2013, the Miles #1 well was found to have TCE (Ref. 32, pp. 1-6; Ref. 33, p. 23). The TCE concentration was 0.16 μ g/L when sampled in March 5, 2009 and 0.2 μ g/L in March 10, 2011. The Miles #1 well is located 2.75 miles southeast of the Site (Figure 5). Miles Well # 1 is listed as inactive (Ref. 26, p. 4)

The Miles #1 well is not eligible for consideration in scoring for this Site because it is used for scoring of the Randolph Road and University Boulevard Superfund Site (CERCLIS ID NMN000606846). The 2008 Preliminary Assessment for the Randolph Road Superfund site identified a ground water chlorinated solvents plume centered near the Miles #1 well (Ref. 34, p. 1; Ref. 35, p.1). The plume consist of tetrachloroethene, TCE, 1,1-dichlorethane, 1,1-dicloroethene, and 1,1,1,2-tetrachloroethane that have been detected at concentrations up to 0.7 μg/L (Ref. 34, p. 1). The Miles Wellfield entry point 1 was sampled and analyzed in 2005, 2009 and 2011 and found to contain TCE at 0.16 μg/L and 0.2 μg/L in 2009 and 2011, respectively (Ref. 32, pp. 2, 4, 6; Ref. 33, pp. 9, 23, 28).

Currently listed as an active ABCWUA Well (Ref. 26, p. 3), the Yale Well #1 was first identified in 1999 with chlorinated solvents including TCE at levels up to 0.2 μ g/L (Ref. 36, pp. 1, 3). Analytical results from the 2005 and 2009, blended Yale Wellfield sample source have no reportable TCE (Ref. 32, pp. 4, 5, 6; Ref. 33, pp. 13, 14, 24).

The Yale Well # 2 Site underwent a Pre CERCLIS screening based on three samples collected in 1996, 1997 and 2000 that demonstrated trace levels of TCE, however, no further investigation was recommended in 2003 based on no additional detections from subsequent quarterly sampling events (Ref. 37, pp. 1, 7).

Other Water Supply Wells

The UNM has one active well, Well #7, within the four mile radius of the Site (Figure 5) (Ref. 30, pp.1-22; Ref. 31, p. 1). Well #7 is classified as a residential well and serves a population of 35,000 (Ref. 31, p.1). The NM Drinking Water system details were reviewed for the UNM water system, as were the analytical results for VOC's including TCE from January 2005 through January 2013 (Ref. 38, pp.1-2; Ref. 39, pp.1-19). The UNM Well #7 was found to have TCE concentrations at 0.1 μ g/L on August 11, 2005 (Ref. 38, p. 2; Ref. 39, p. 4). The UNM distribution system had occurrences of TCE at 0.1 μ g/L on each of the sampling events on June 2010, August 2010, October 2010 and August 2011 (Ref. 38, p. 1; Ref. 39, pp. 8, 10, 18). UNM has one inactive well, Well #5 (Ref. 30, p. 1).

The Lovelace Medical Center well is located within the Site four mile radius and is located approximately 0.95 miles east of the Site and 0.6 miles east of the FAP site area (Figure 5) (Ref. 24, p. 21). This well served all potable and non-potable water for the hospital until it was shut down in 1997 because TCE levels were approaching the MCL (Ref. 24 p. 21). PCE and TCE had been detected below MCL's at this well since 1993 (Ref. 24; p. 21).

The Presbyterian Hospital well is located at the NW corner of Lead and Mulberry Avenues and is approximately 1.25 miles southeast of the Site and 1.0 mile southeast of the FAP site area

(Figure 5) (Ref. 24, p. 21; Ref 40, p.1). The Presbyterian Hospital Well was sampled by the NMED in November 1998, July 1999, February 2000, and February 2002 (Ref. 40, p. 1; 41, p. 1). The 1998 results detected TCE in the well and duplicate at 1.0 μ g/L (Ref. 40, p. 1). The 2002 ground water sample contained 1.5 μ g/L TCE, which was slightly higher than the previous sample results (Ref. 41, p. 1). The Presbyterian well was installed in 1994 to a depth of 470 feet and screened from 400 to 460 feet bgs (Ref. 40, p.1). It was sampled several times in the late 1990's with concentrations of TCE detected up to 2.0 μ g/L (Ref. 24, p. 21). The Presbyterian well is used primarily for non-potable uses but is plumbed for emergency use as a potable drinking water supply for service to approximately 4000 hospital staff and patients (Ref. 24, p. 21; Ref. 41, p. 2).

3.2.5 Ground Water Investigation Methods and Results

Investigative methods during this PA included researching and reviewing existing analytical data in state and city case files discussed in sections 2.2 and 2.3. A release of chlorinated solvents to ground water has been documented based on historic ground water data.

3.3 Surface Water Pathway

The surface water pathway assesses the threat to human health and the environment by determining whether hazardous substances are likely to have been released to surface water; and whether any receptors (intakes supplying drinking water, fisheries, sensitive environments) are likely to be exposed to a hazardous substance as a result of a release.

Although there are several surface water courses within proximity to the Site including the Rio Grande and several irrigation and storm water drainages, the surface water pathway was not evaluated because neither the source nor the extent of the plume have been determined.

3.3.1 Surface Water Hydrology

The Site is located in the central portion of the Albuquerque Basin. This Basin is one of the largest of the southerly-trending series of grabens that form the Rio Grande Drainage Basin (Ref. 10, p. 4). The Rio Grande traverses the Albuquerque Basin from north to south and is approximately 1.25 miles west of the Site center point; see Figure 6 (Ref. 5). The aquifer is in direct hydraulic communication with the Rio Grande. The Rio Grande is seeping water to the aquifer, this seepage is enhanced by modern hydraulic gradients (Ref. 42, pp. 18, 20, 21), The hydraulic gradient, as documented in studies performed in 1953-1960, 1988-1989,1999-2002, and in 2008, is moving from east to west away from the Rio Grande within the Site area (Ref. 42, pp. 18).

3.3.2 Surface Water Quality

The surface water Pathway cannot be fully characterized because the extent of the contamination has not been determined. The need for characterization of the surface water pathway will be determined based upon the results of the source/waste characterization activities conducted during subsequent investigation of this Site.

3.3.3 Surface Water Use

The surface water is managed by the Middle Rio Grande Conservancy District within the Albuquerque Basin. The Rio Grande Surface water is used for irrigation, maintaining wild life ecosystems and recreational parks (Ref. 43, pp. 1-3). The Rio Grande is within 1.25 miles of the center of the four mile radius map, while the irrigation ditch and surface ponds used for recreation and fishing at Tingly Beach are within 1 mile see (Figure 6). Rio Grande surface water from the San Juan Chama Project transported from the Colorado River basin is used as a drinking water source (Ref. 25, p. 1; Ref. 27, p.1).

3.4 Soil Exposure Pathway

The soil exposure pathway assesses the threat to human health and the environment by direct contact with hazardous substances and areas of suspected contamination. This pathway addresses any material containing hazardous substances that is on or within 2 feet of the surface and not capped by an impermeable cover. This Site is primarily a ground water contamination Site where the sources have not been identified.

No data acquisition was performed for the evaluation of the soil exposure pathway. However, because the contaminants at the Site are VOC, volatilization from soil to air, particularly indoor air, may present an exposure pathway.

3.4.1 Soil Exposure Pathway Description

Subsurface soils were screened for soil gas at a depth of 2 feet and 4 feet bgs at the Former Bell Trading Post location in 2001(Ref. 10, p. 12 and Appendix B). Twelve sample locations around the building exterior were screened (Ref. 10, Figure 2). These PID soil gas headspace results, ranged between 1.7 ppm to 4.8 ppm in the 2 foot bgs sampling depth and 1.2 ppm to 6.6 ppm in the 4 foot bgs sampling depth. Soil gas samples from the 4 foot interval were then screened using a PID prior to collection in tedlar bags. These readings ranged from 0.1 ppm to 3,275 ppm with two higher readings of >9,999 that were believed at the time to be due to equipment problems (Ref. 10, p.14). Only the 4 foot bgs sample interval was analyzed for VOC's by method 8260B (Ref. 10, pp.14, 15 and 31-40). TCE was detected in 6 of the 12 sample location and the results ranged from 0.2 ug/L to 3.4 ug/L (Ref. 10, pp. 14, 15, 31, 36-40, 42-53). No additional data acquisition was performed for the evaluation of the soil exposure pathway.

3.4.2 Potentially Exposed Receptors

The Former Bell Trading Post Site and its surrounding area are paved. The nearby residential areas are not completely paved. The closest private homes are approximately five feet from

location where the soil samples were taken in 2001 at the Former Bell Trading Post and at a depth of 2 and 4 feet bgs. In 2008, the former Bell Trading Post building was renovated and now contains 15 home units (Ref. 13, p. 1).

3.5 Air Pathway

The air pathway assesses the threat to human health and the environment by determining whether hazardous substances are likely to have been released to the air; and whether any receptors (human population and sensitive environments) are likely to be exposed to hazardous substances as a result of a release. This Site is primarily a ground water contamination Site where the sources have not been identified. No data acquisition was performed for the evaluation of the air pathway. However, because the contaminants at the Site are VOC, volatilization from soil or ground water to air, particularly indoor air, may present an exposure pathway.

3.5.1 Potentially Exposed Receptors

The air exposure pathway cannot be fully characterized because the extent of the contamination has not been determined. The need for characterization of the air exposure pathway will be determined based upon the results of the source/waste characterization activities conducted during subsequent investigation of the Site.

4.0 Summary and Conclusions

The Site is characterized as a ground water plume of chlorinated solvents with no identified source in a combined commercial, light industrial and residential area in western downtown Albuquerque. The Site was identified when chlorinated solvents were detected in background ground water samples collected from upgradient monitoring wells in 2005 at the Fruit Avenue Plume Superfund Site near the corner of 9th street NW and Marquette Ave NW. TCE was detected in the ground water and subsurface soils at the Former Bell Trading Post located at 1503 Central Ave. NW, a former jewelry manufacturing business that is known to have used TCE for degreasing purposes. Additional businesses, including a jewelry manufacturer, automotive maintenance/repair shops, and laundry/drycleaners, have been identified in the vicinity that also have the potential for using chlorinated solvents in the course of business.

The most recent ground water samples collected from the FAP site in 2012 show that TCE concentrations currently exceed the EPA Drinking water MCLs of 5µg/L and are increasing in the monitor wells that are down gradient of the Former Bell Trading Post location. In August 2012, monitor well MNW-11 (D1) (located at 9th Street NW and Marquette Avenue NW) contained the highest TCE detection at a concentration of 46.0 µg/L (Ref. 9, pp. 36, 65). A release of chlorinated solvents to ground water has been documented. Additional substances which have been observed in the ground water include cis-1,2-DCE, and trans,-1,2-DCE (Ref. 9, pp. 36, 37, 42, 43, and 59-69).

There are 114 water supply wells in the ABCWUA System of which 87 wells are active and 24 of the active wells are within the 4 mile radius of the Site (Figure 5) (Ref. 26, pp. 1-6). Surface water can be blended into the drinking water system; however under current drought conditions and permit

limitations the addition of SJC surface water is limited to 5 months of the year, currently the system is not receiving any surface water (Ref. 27). The ABCWUA system serves 601,983 people on a blended system that conservatively is supplied 100 percent by ground water source (Ref. 26, p. 1; Ref. 27, p. 1; Ref. 28, p. 1). The 24 wells with in a 4 mile radius of the site serve approximately 601,983*24/87 = 166, 64 people. Several drinking water wells have had detectable concentrations of chlorinated solvents, however none have exceeded the EPA drinking water MCL's or the new Mexico WQCC human health standard. The closest wells with known contamination are the Presbyterian Well, UNM Well #7, Yale #1, and Miles #1. The Presbyterian Hospital Well is currently used as a non-potable source but can be used as a drinking water source to serve 4000 Hospital staff and patients (Ref. 24, p. 21). The Presbyterian Hospital well is located approximately 1.25 miles southeast of the West Central Avenue Site and was sampled several times in the late 1990's and contained concentrations of up to 1.5 µg/L of TCE (Ref. 24, p. 21; Ref. 41, p.1). The UNM Well #7 is an active well that serves a population of 35,000 on the UNM Campus and is located approximately 2.25 miles east of the West Central Avenue Site. The UNM Well #7 contained TCE at 0.1 µg/L in 2005 (Ref. 38, p. 2; Ref. 39, p. 4) while the UNM Distribution System sampled in 2010 and 2011 on three separate occasions had TCE at 0.1 µg./L (Ref. 38, pp.1, 2; Ref. 39, pp. 4, 8, 10, 18). The Yale #1 is an active ABCWUA well, located approximately 2.1 miles southeast of the West Central Avenue Site. The Yale # 1 ground water sample had TCE detected up to 0.2 µg/L in 1999 (Ref. 36, pp.1, 3), while the samples in 2005 and 2009 of the blended Yale Wellfield source has been non detect for TCE (Ref. 32, pp. 4, 5; Ref. 33, pp. 13,24). The Miles #1 is an inactive ABCWUA well that is located approximately 2.75 miles southeast of the West Central Avenue Site. In 2011, the Miles Wellfield entry point 1, contained TCE at 0.2 µg/L (Ref. 32, pp. 2, 4, 6; Ref. 33, pp. 9, 23, 28). Within the 4 mile radius of the Site domestic private wells numbering 1274 have been identified from the Office of the State Engineer data. However, completion dates were not assigned to this data and therefore future investigation will need to confirm the actual number of domestic private wells and/or if any are contaminated.

The soil, surface water and air pathways have not been fully investigated as part of this PA because the bulk of existing data pertained to the ground water pathway. Additional evaluation of all pathways may be warranted and indoor air exposure should be investigated with regards to people with residences constructed atop contaminated soil. In order to determine if a potential threat to human health and the environment exists at the Site, NMED SOS recommends that further investigation be performed under CERCLA to determine the source or sources of the TCE and other chlorinated solvents within the plume. NMED SOS also recognizes that monitored natural attenuation is the current recommended action for the FAP Superfund site that is located down gradient and as such may influence the best course of action for this Site.

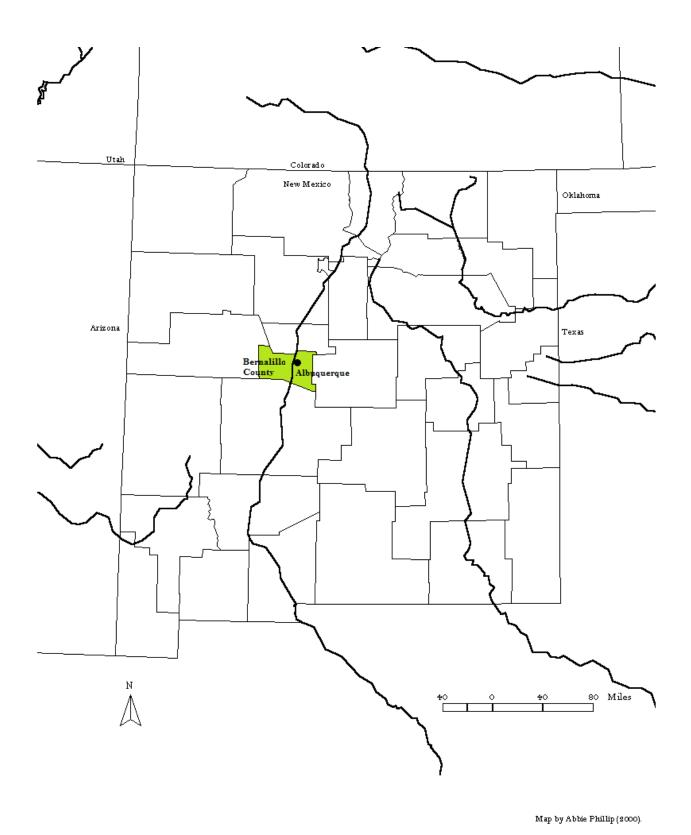


Figure 1 Counties and Rivers in New Mexico, Bernalillo County is highlighted.

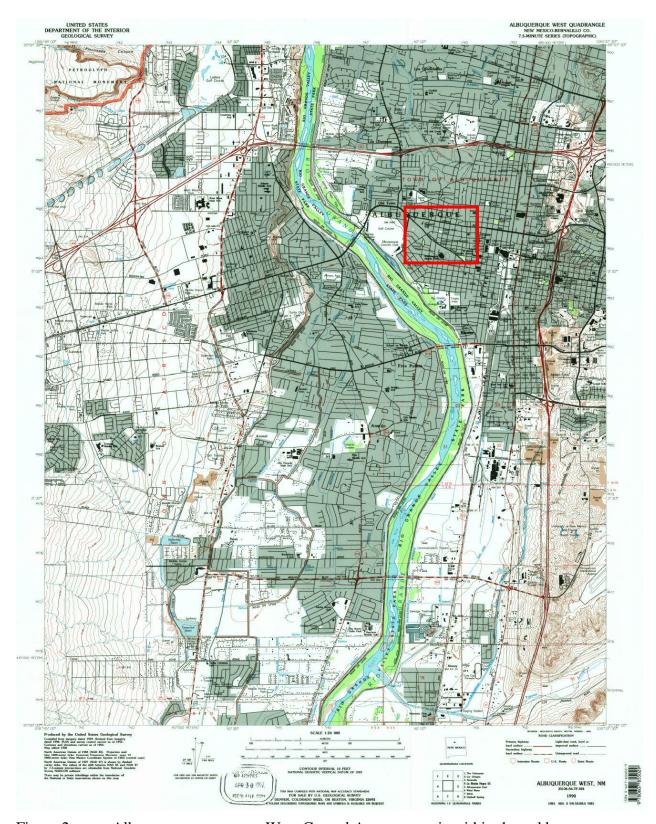


Figure 2 Albuquerque area map, West Central Avenue area is within the red box.

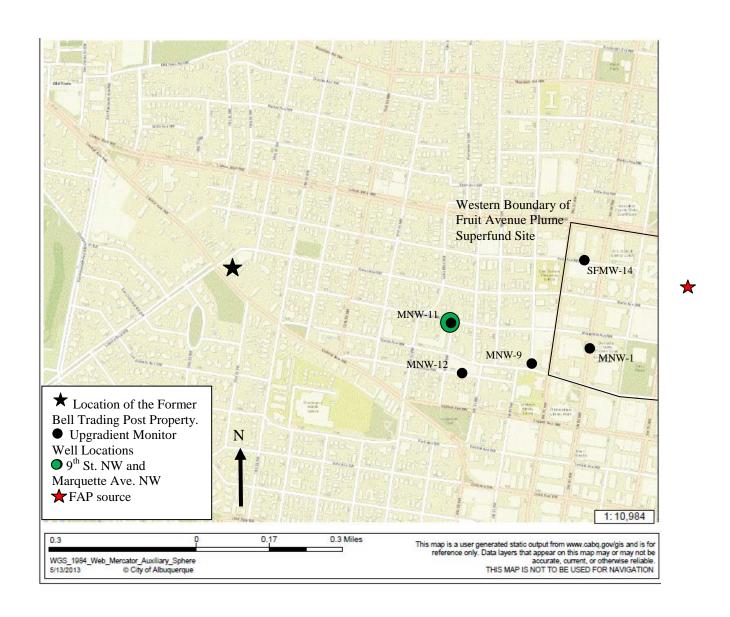


Figure 3 Monitor wells within the West Central Avenue area, Albuquerque, NM.

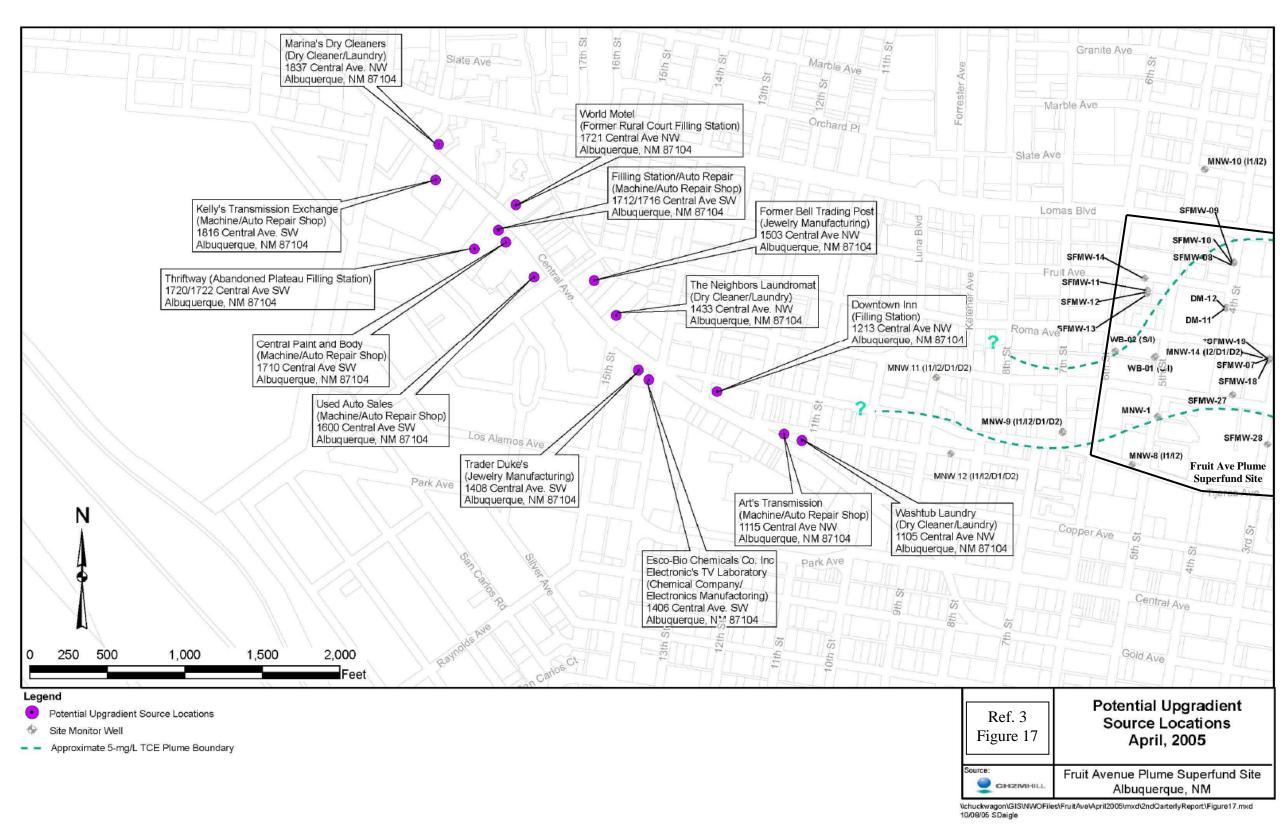


Figure 4 Business upgradient of 9th Street NW and Marquette Avenue NW & FAP outline.

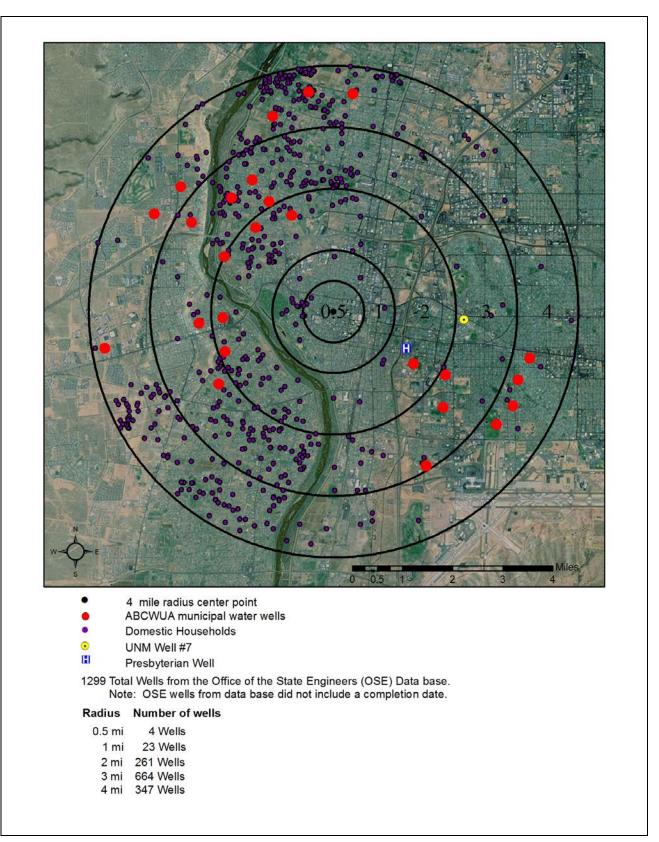


Figure 5 4 Mile Radius Map - Center point at 9th Street NW and Marquette Ave NW

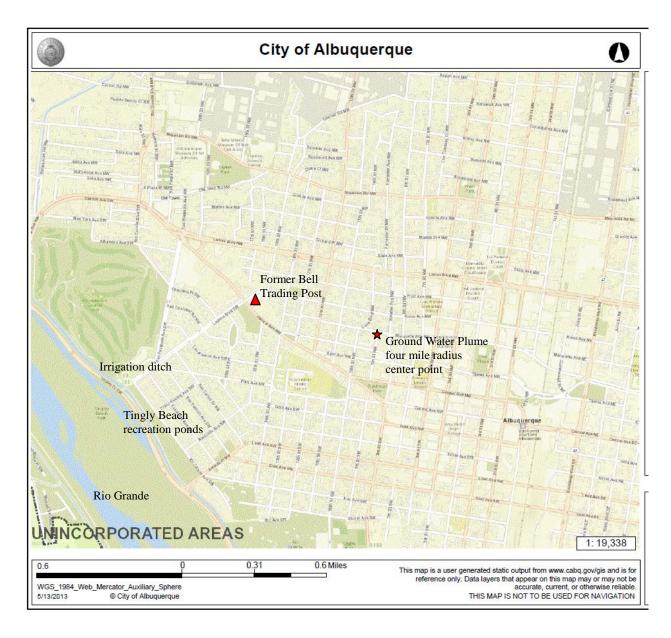


Figure 6 Proximity of surface water bodies to center point and Former Bell Trading Post.

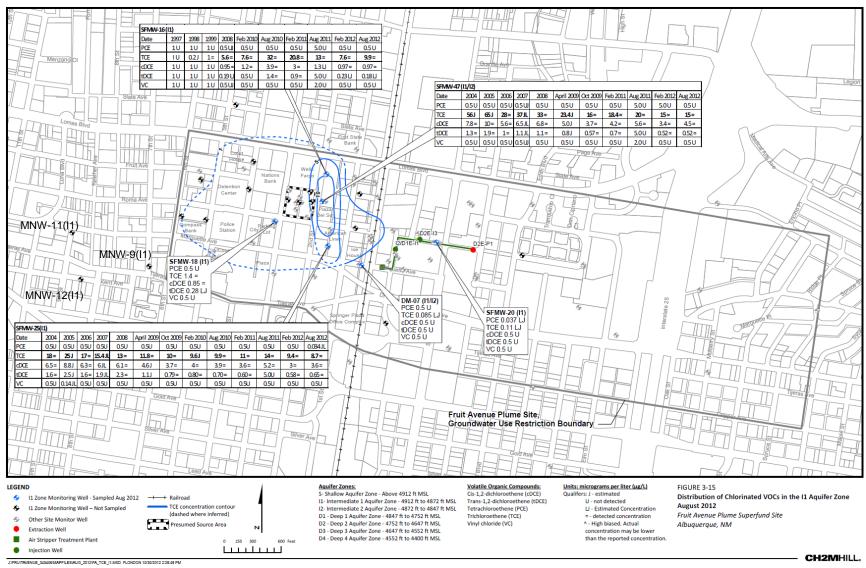


Figure 7 Intermediate, I1 Aquifer Zone - August 2012 Distribution of Chlorinated VOC's.

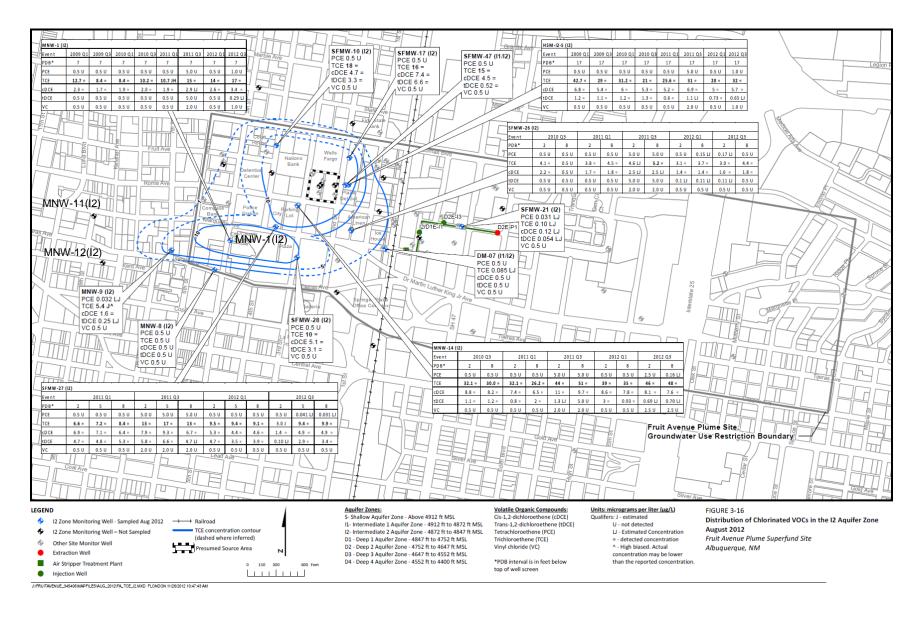


Figure 8 Intermediate, I2 Aquifer Zone - August 2012 Distribution of Chlorinated VOC's.

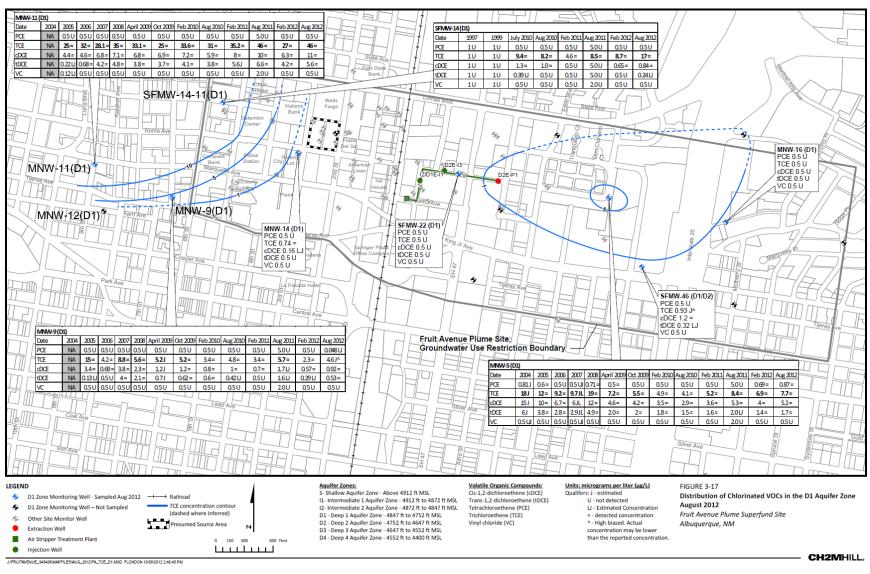


Figure 9 Deep, D1 Aquifer Zone - August 2012 Distribution of Chlorinated VOC's.

Table 1Summary of chlorinated organic compounds that have been detected at the Site.									
Volatile Organic Compounds					(PCE)	(TCE)	(cis-1,2- DCE)	(trans- 1,2- DCE)	Vinyl Chloride
			NM WQCC Sta	ndards (µg/L) :	20	100	1x10 ⁶ risk		1
EPA MCLs (μg/L) :					5	5	70	100	2
Cancer Benchmark (µg/L) :				0.67		none			
			Non Cancer Benc	hmark (µg/L) :	350		350		
Sample Location	Aquifer Zone	Sample ID	Location	Sample Date					
MNW-1 (I2)									
MNW-1 (I2)	I2	MNW1Q403	MNW1Q403	11/16/03 11:35	0.7936	10 =	3.9 =		0.4 J
MNW-1 (I2)	I2	F17G6	MNW-1-I2-2	11/9/2004 8:18	0.5 U	2.1 =	1.7 =	0.5 U	0.5 U
MNW-1 (I2)	I2	F17G7	MNW-1-I2-7	11/9/04 8:26	0.5 U	2.4 =	1.7 =	0.5 U	0.5 U
MNW-1 (I2)	I2	F17G8	MNW-1-I2-12	11/9/04 8:33	0.5 U	2.4 =	2 =	0.5 U	0.5 U
MNW-1 (I2)	I2	F17G9	MNW-1-I2-17	11/9/2004 8:40	0.5 U	2.6 =	1.9 =	0.5 U	0.25 LJ
MNW-1 (I2)	I2	F1DJ3	MNW-1-I2-2	4/20/05 8:29	0.5 U	1.4 =	0.8 =	0.5 U	0.5 U
MNW-1 (I2)	I2	F1DJ4	MNW-1-I2-7	4/20/05 8:33	0.5 U	1.4 =	0.75 =	0.5 U	0.5 U
MNW-1 (I2)	I2	F1DJ6	MNW-1-I2-12	4/20/05 8:38	0.5 U	1.5 =	0.74 =	0.5 U	0.5 U
MNW-1 (I2)	I2	F1DJ7	MNW-1-I2-17	4/20/05 8:41	0.5 U	1.4 =	0.81 =	0.5 U	0.5 U
MNW-1 (I2)	I2	F1NN2	MNW-1-I2-2	7/12/05 10:47	0.5 U	2.7 =	0.86 =	0.19 LJ	0.5 U
MNW-1 (I2)	I2	F1NN3	MNW-1-I2-7	7/12/05 10:48	0.5 U	2.7 =	0.9 =	0.19 LJ	0.5 U
MNW-1 (I2)	I2	F1NN5	MNW-1-I2-12	7/12/05 10:49	0.5 U	2.3 =	1.3 =	0.17 LJ	0.1 LJ
MNW-1 (I2)	I2	F1NN6	MNW-1-I2-17	7/12/05 10:51	0.5 U	2.2 =	1.2 =	0.5 U	0.5 U
MNW-1 (I2)	I2	F2643	MNW-1-I2-7	8/29/06 7:20	0.5 U	2.4 =	0.97 =	0.5 U	0.5 U
MNW-1 (I2)	I2	MNW-1-I2-7-Q408	MNW-1-I2-7	10/6/08 8:10	0.5 U	12.8 =	2.4 =	0.5 U	0.5 U
MNW-1 (I2)	I2	MNW-1-I2-7-Q209	MNW-1-I2-7	4/20/09 8:02	0.5 U	12.7 =	2.3 =	0.5 U	0.5 U
MNW-1 (I2)	I2	F3B18	MNW-1-I2-7	10/26/09 9:02	0.5 U	8.4 =	1.7 =	0.5 U	0.5 U
MNW-1 (I2)	I2	MNW-1-I2-7_100201	MNW-1-I2-7	2/1/10 7:45	0.5 U	8.4 =	1.9 =	0.5 U	0.5 U
MNW-1 (I2)	I2	MNW-1-I2-7-Q310	MNW-1-I2-7-Q310	9/8/10 8:25	0.5 U	10.2 =	2.0 =	0.5 U	0.5 U

Table 1Summary of chlorinated organic compounds that have been detected at the Site.									
Volatile Organic Compounds					(PCE)	(TCE)	(cis-1,2- DCE)	(trans- 1,2- DCE)	Vinyl Chloride
			NM WQCC Sta	ndards (µg/L) :	20	100	1x10 ⁶ risk		1
			EPA	MCLs (μg/L):	5	5	70	100	2
	Cancer Benchmark (µg/L) :						none		
			Non Cancer Benc	hmark (µg/L) :	350		350		
Sample Location	Aquifer Zone	Sample ID	Location	Sample Date					
MNW-1 (I2)	I2	MNW-1-I2-7-Q310-FD	MNW-1-I2-7-Q310-FD	9/8/10 8:30	0.5 U	9.2 =	2.1 =	0.5 U	0.5 U
MNW-1 (I2)	I2	MNW-1-I2-5-Q111	MNW-1-I2-7	2/16/11 8:25	0.5 U	10.7 JH	1.9 =	0.5 U	0.5 U
MNW-1 (I2)	I2	F4EC3	MNW-1-I2-7-Q311	8/23/11 7:57	5.0 U	15 =	2.9 LJ	5.0 U	2.0 U
MNW-1 (I2)	I2	F4EC4	MNW-1-I2-7-FD-Q311	8/23/11 7:59	5.0 U	18 =	3.5 LJ	5.0 U	2.0 U
MNW-1 (I2)	I2	F5G86	MNW-1-I2-7	2/28/12 8:20	0.5 U	14 =	2.6 =	0.5 U	0.5 U
MNW-1 (I2)	I2	F6CA3	MNW-1-I2-7	8/20/2012 9:38	1.0 U	17 =	3.4 =	0.29 LJ	1.0 U
MNW-9 (I1)									
MNW-9 (I1)	I1	MNW9I1Q403	MNW9I1Q403	12/17/03 14:55	0.7936	0.3733	0.2937 <		0.2227 <
MNW-9 (I1)	I1	F17J8	MNW-9-I1-2	11/8/04 12:18	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-9 (I1)	I1	F17J9	MNW-9-I1-7	11/8/04 12:30	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-9 (I1)	I1	F17K0	MNW-9-I1-12	11/8/04 12:41	0.5 UJv	0.5 UJv	0.5 UJv	0.5 UJv	0.5 UJv
MNW-9 (I1)	I1	F1DC9	MNW-9-I1-2	4/19/2005 13:13	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-9 (I1)	I1	F1DD0	MNW-9-I1-7	4/19/05 13:18	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-9 (I1)	I1	F1DD1	MNW-9-I1-12	4/19/05 13:27	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-9 (I1)	I1	F1NG8	MNW-9-I1-2	7/11/05 13:24	0.5 U	0.5 U	0.5 U	0.5 U	0.12 LJ
MNW-9 (I1)	I1	F1NG9	MNW-9-I1-7	7/11/05 13:26	0.5 U	0.5 U	0.5 UJv	0.5 UJv	0.5 U
MNW-9 (I1)	I1	F1NH0	MNW-9-I1-12	7/11/05 13:28	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-9 (I1)	I1	F1YL7	MNW-9-I1-7	2/6/06 10:21	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-9 (I1)	I1	F2689	MNW-9-I1-7	8/29/06 10:55	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-9 (I1)	I1	MNW-9-I1_070219	MNW-9-I1-7	2/19/07 12:53	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ

Table 1Summary of chlorinated organic compounds that have been detected at the Site.									
Volatile Organic Compounds					(PCE)	(TCE)	(cis-1,2- DCE)	(trans- 1,2- DCE)	Vinyl Chloride
			NM WQCC Sta	ndards (µg/L) :	20	100	1x10 ⁶ risk		1
	EPA MCLs (μg/L):						70	100	2
Cancer Benchmark (µg/L):					0.67		none		
	Non Cancer Benchmark (µg/L):				350		350		
Sample Location	Aquifer Zone	Sample ID	Location	Sample Date					
MNW-9 (I1)	I1	MNW-9-I1-7-Q407	MNW-9-I1-7	10/1/07 12:03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-9 (I1)	I1	F2RR2	MNW-9-I1-7	4/14/08 0:00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-9 (I1)	I1	MNW-9-I1-7-Q408	MNW-9-I1-7	10/6/08 10:33	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-9 (I1)	I1	MNW-9-I1-7-Q209	MNW-9-I1-7	4/20/09 14:10	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-9 (I1)	I 1	MNW-9-I1-5-Q111	MNW-9-I1-5	2/16/11 11:46	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-9 (I2)									
MNW-9 (I2)	I2	MNW9I2Q403	MNW9I2Q403	12/18/03 17:05	0.7936	11 =	2.2 =		0.2227 <
MNW-9 (I2)	I2	F17K2	MNW-9-I2-2	11/8/04 13:00	0.5 U	7.9 =	3.3 =	0.5 U	0.37 LJ
MNW-9 (I2)	I2	F17K3	MNW-9-I2-7	11/8/04 13:15	0.5 U	17 =	3.8 =	0.5 U	0.5 U
MNW-9 (I2)	I2	F17K5	MNW-9-I2-12	11/8/04 13:25	0.5 U	19 =	3.9 =	0.5 U	0.5 U
MNW-9 (I2)	I2	F17K6	MNW-9-I2-17	11/8/04 13:35	0.5 U	19 =	3.9 =	0.5 U	0.5 U
MNW-9 (I2)	I2	F1DD3	MNW-9-I2-2	4/19/05 13:40	0.5 U	16 =	3.3 =	0.11 LJ	0.5 U
MNW-9 (I2)	I2	F1DD4	MNW-9-I2-7	4/19/05 13:44	0.5 U	18 =	3.5 =	0.11 LJ	0.5 U
MNW-9 (I2)	I2	F1DD6	MNW-9-I2-12	4/19/05 13:50	0.5 U	18 J	3.6 =	0.11 LJ	0.5 U
MNW-9 (I2)	I2	F1DD7	MNW-9-I2-17	4/19/05 13:54	0.5 U	22 =	4.3 =	0.5 U	0.5 U
MNW-9 (I2)	I2	F1DA1	MNW-9-I2	4/20/05 9:20	0.5 U	14 J	2.6 =	0.5 U	0.5 U
MNW-9 (I2)	I2	F1NH2	MNW-9-I2-2	7/11/05 13:37	0.5 U	18 =	3.3 =	0.12 LJ	0.16 LJ
MNW-9 (I2)	I2	F1NH3	MNW-9-I2-7	7/11/05 13:39	0.5 U	16 =	3.4 =	0.12 LJ	0.13 LJ
MNW-9 (I2)	I2	F1NH5	MNW-9-I2-12	7/11/05 13:42	0.5 U	21 J	4.7 =	0.17 LJ	0.5 U
MNW-9 (I2)	I2	F1NH6	MNW-9-I2-17	7/11/05 13:49	0.5 U	21 =	4.9 =	0.18 LJ	0.14 LJ
MNW-9 (I2)	I2	F1YL8	MNW-9-I2-17	2/6/06 10:26	0.5 U	20 =	3.6 =	0.5 U	0.5 U
MNW-9 (I2)	I2	F2690	MNW-9-I2-17	8/29/06 11:00	0.5 U	17 =	2.5 =	0.5 U	0.5 U
MNW-9 (I2)	I2	MNW-9-I2_070219	MNW-9-I2-17	2/19/07 13:00	0.5 UJ	18.8 JL	3.6 JL	0.5 UJ	0.5 UJ

Table 1Summary of chlorinated organic compounds that have been detected at the Site.									
	Volatile Organic Compounds					(TCE)	(cis-1,2- DCE)	(trans- 1,2- DCE)	Vinyl Chloride
			NM WQCC Star	ndards (µg/L) :	20	100	1x10 ⁶ risk		1
			EPA	MCLs (μg/L) :	5	5	70	100	2
			Cancer Benc	hmark (µg/L) :	0.67		none		
Non Cancer Benchmark (µg/L):				350		350			
Sample Location	Aquifer Zone	Sample ID	Location	Sample Date					
MNW-9 (I2)	I2	MNW-9-I2-17-Q407	MNW-9-I2-17	10/1/07 11:53	0.5 U	16.4 =	4.1 =	0.5 U	0.5 U
MNW-9 (I2)	I2	F2RR3	MNW-9-I2-17	4/14/08 0:00	0.5 U	19 =	4.9 =	0.14 LJ	0.5 U
MNW-9 (I2)	I2	MNW-9-I2-17-Q408	MNW-9-I2-17	10/6/08 10:39	0.5 U	16.2 =	4.4 =	0.5 U	0.5 U
MNW-9 (I2)	I2	MNW-9-I2-17-Q209	MNW-9-I2-17	4/20/09 14:16	0.5 U	13.8 J	3.2 J	0.5 U	0.5 U
MNW-9 (I2)	I2	F3B23	MNW-9-I2-17	10/26/09 8:38	0.5 U	11 =	2.7 =	0.5 U	0.5 U
MNW-9 (I2)	I2	MNW-9-I2-17_100202	MNW-9-I2-17	2/2/10 10:40	0.5 U	12.1 =	2.9 =	0.5 U	0.5 U
MNW-9 (I2)	I2	MNW-9-I2-17-Q310	MNW-9-I2-17-Q310	9/7/10 8:37	0.5 U	9.4 =	2.9 =	0.5 U	0.5 U
MNW-9 (I2)	I2	MNW-9-I2-17-Q111	MNW-9-I2-17	2/16/11 11:38	0.5 U	7.2 =	1.9 =	0.5 U	0.5 U
MNW-9 (I2)	I2	F4ED2	MNW-9-I2-17-Q311	8/22/11 9:17	5.0 U	8.9 =	2.6 LJ	5.0 U	2.0 U
MNW-9 (I2)	I2	F4ED0	MNW-9-12-17-FD-Q311	8/22/11 9:18	5.0 U	9.2 =	2.7 LJ	5.0 U	2.0 U
MNW-9 (I2)	I2	F5G43	MNW-9-I2-17	2/27/12 12:47	0.5 U	4.5 =	1.5 =	0.5 U	0.5 U
MNW-9 (I2)	I2	F6CE2	MNW-9-I2-17	8/20/12 13:46	0.032 LJ	5.4 J^	1.6 =	0.25 LJ	0.5 U
MNW-9 (D1)									
MNW-9 (D1)	D1	F1DD8	MNW-9-D1-2	4/19/05 14:24	0.5 U	2.2 =	0.4 LJ	0.5 U	0.5 U
MNW-9 (D1)	D1	F1DD9	MNW-9-D1-7	4/19/05 14:28	0.5 U	1.5 =	0.34 LJ	0.5 U	0.5 U
MNW-9 (D1)	D1	F1DE0	MNW-9-D1-12	4/19/05 14:31	0.5 U	1.2 =	0.5 U	0.5 U	0.5 U
MNW-9 (D1)	D1	F1DE1	MNW-9-D1-17	4/19/05 14:34	0.5 U	1.3 =	0.28 LJ	0.5 U	0.5 U
MNW-9 (D1)	D1	F1DA3	MNW-9-D1	4/20/05 12:05	0.5 U	2.9 =	0.35 LJ	0.5 U	0.5 U
MNW-9 (D1)	D1	F1NH7	MNW-9-D1-2	7/11/05 14:05	0.5 U	15 =	3.4 =	0.13 LJ	0.5 U
MNW-9 (D1)	D1	F1NH8	MNW-9-D1-7	7/11/05 14:07	0.5 U	6.2 =	1.2 =	0.5 U	0.5 U
MNW-9 (D1)	D1	F1NH9	MNW-9-D1-12	7/11/05 14:09	0.5 U	8 =	1.7 =	0.5 U	0.5 U
MNW-9 (D1)	D1	F1NJ0	MNW-9-D1-17	7/11/05 14:11	0.5 U	5. 3 =	1.1 =	0.5 U	0.11 LJ
MNW-9 (D1)	D1	F1YL9	MNW-9-D1-2	2/6/06 10:37	0.5 U	4.2 =	0.69 =	0.5 U	0.5 U
MNW-9 (D1)	D1	F1YM0	MNW-9-D1-7	2/6/06 10:38	0.5 U	3.2 =	0.51 =	0.5 U	0.5 U

	Table 1Summary of chlorinated organic compounds that have been detected at the Site.											
		Volatile Organic Co	mpounds		(PCE)	(TCE)	(cis-1,2- DCE)	(trans- 1,2- DCE)	Vinyl Chloride			
			NM WQCC Star	ndards (µg/L) :	20	100	1x10 ⁶ risk		1			
			EPA	MCLs (μg/L) :	5	5	70	100	2			
			Cancer Benc	hmark (µg/L) :	0.67		none					
			Non Cancer Benc	hmark (µg/L) :	350		350					
Sample Location	Aquifer Zone	Sample ID	Location	Sample Date								
MNW-9 (D1)	D1	F1YM2	MNW-9-D1-12	2/6/06 10:41	0.5 U	2 =	0.5 U	0.5 U	0.5 U			
MNW-9 (D1)	D1	F1YM3	MNW-9-D1-17	2/6/06 10:43	0.5 U	1.9 =	0.5 U	0.5 U	0.5 U			
MNW-9 (D1)	D1	F2686	MNW-9-D1-2	8/29/06 11:05	0.5 U	3.4 =	0.5 U	0.5 U	0.5 U			
MNW-9 (D1)	D1	MNW-9-D1-070222	MNW-9-D1-2	2/22/07 11:00	0.5 U	4.6 =	0.8 =	0.5 U	0.5 U			
MNW-9 (D1)	D1	MNW-9-D1-2-Q407	MNW-9-D1-2	10/1/07 11:31	0.5 U	8.8 =	3.8 =	4 =	0.5 U			
MNW-9 (D1)	D1	F2RR4	MNW-9-D1-2	4/14/08 0:00	0.5 U	5.6 =	2.3 =	2.1 =	0.5 U			
MNW-9 (D1)	D1	MNW-9-D1-2-Q408	MNW-9-D1-2	10/6/08 10:15	0.5 U	2.2 =	5.1 =	7.2 =	0.5 U			
MNW-9 (D1)	D1	MNW-9-D1-2-Q209	MNW-9-D1-2	4/20/09 13:53	0.5 U	5.2 J	1.2 J	0.7 J	0.5 U			
MNW-9 (D1)	D1	MNW-9-D1-2-FD-Q209	MNW-9-D1-2-FD	4/20/09 14:00	0.5 U	5.0 J	1.3 J	0.6 J	0.5 U			
MNW-9 (D1)	D1	F3B24	MNW-9-D1-2	10/26/09 8:45	0.5 U	5.2 =	1.2 =	0.62 =	0.5 U			
MNW-9 (D1)	D1	MNW-9-D1-2_100202	MNW-9-D1-2	2/2/10 10:30	0.5 U	3.4 =	0.8 =	0.6 =	0.5 U			
MNW-9 (D1)	D1	MNW-9-D1-2_100202-F D	MNW-9-D1-2	2/2/10 11:30	0.5 U	3.3 =	0.8 =	0.6 =	0.5 U			
MNW-9 (D1)	D1	F3LQ6	MNW-9-D1-2-Q310	9/2/10 13:10	0.5 U	4.8 =	1 =	0.42 LJ	0.5 U			
MNW-9 (D1)	D1	F3LQ7	MNW-9-D1-2-Q310-FD	9/2/10 14:10	0.5 U	4.4 =	0.96 =	0.39 LJ	0.5 U			
MNW-9 (D1)	D1	MNW-9-D1-2-Q111	MNW-9-D1-2	2/16/11 11:28	0.5 U	3.4 =	0.7 =	0.5 U	0.5 U			
MNW-9 (D1)	D1	F4ED1	MNW-9-D1-2-Q311	8/22/11 9:25	5.0 U	5.7 =	1.7 LJ	1.6 LJ	2.0 U			
MNW-9 (D1)	D1	F5G42	MNW-9-D1-2	2/27/12 12:57	0.5 U	2.3 =	0.57 =	0.29 LJ	0.5 U			
MNW-9 (D1)							0.92 =	0.53 =	0.5 U			
MNW-9 (D2)												
MNW-9 (D2)	D2	F1DE2	MNW-9-D2-2	4/19/05 14:44	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-9 (D2)	D2	F1DE3	MNW-9-D2-7	4/19/05 14:47	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-9 (D2)							0.5 U	0.5 U	0.5 U			
MNW-9 (D2)	D2	F1DE5	MNW-9-D2-17	4/19/05 14:53	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			

	Table 1Summary of chlorinated organic compounds that have been detected at the Site.											
		Volatile Organic Co	mpounds		(PCE)	(TCE)	(cis-1,2- DCE)	(trans- 1,2- DCE)	Vinyl Chloride			
			NM WQCC Sta	andards (µg/L) :	20	100	1x10 ⁶ risk		1			
			EPA	MCLs (μg/L):	5	5	70	100	2			
			Cancer Ben	chmark (μg/L) :	0.67		none					
			Non Cancer Ben	chmark (µg/L) :	350		350					
Sample Location	Aquifer Zone	Sample ID	Location	Sample Date								
MNW-9 (D2)	D2	F1NJ1	MNW-9-D2-2	7/11/05 14:23	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-9 (D2)	D2	F1NJ2	MNW-9-D2-7	7/11/05 14:24	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-9 (D2)	D2	F1NJ3	MNW-9-D2-12	7/11/05 14:26	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-9 (D2)	D2	F1NJ4	MNW-9-D2-17	7/11/05 14:27	0.5 U	0.5 U 0.5 U	0.5 U	0.5 U	0.5 U			
MNW-9 (D2)	V-9 (D2) D2 F1YM4 MNW-9-D2-2 2/6/06 10						0.5 U	0.5 U	0.5 U			
MNW-9 (D2)	D2	F2688	MNW-9-D2-7	8/29/06 11:15	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-9 (D2)	D2	MNW-9-D2-070222	MNW-9-D2-7	2/22/07 11:10	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-9 (D2)	D2	MNW-9-D2-7-Q407	MNW-9-D2-7	10/1/07 11:43	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-9 (D2)	D2	F2RR6	MNW-9-D2-7	4/14/08 0:00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-9 (D2)	D2	MNW-9-D2-7-Q408	MNW-9-D2-7	10/6/08 10:06	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-9 (D2)	D2	MNW-9-D2-7-Q209	MNW-9-D2-7	4/20/09 13:49	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-9 (D2)	D2	MNW-9-D2-7-Q111	MNW-9-D2-7	2/16/11 11:18	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-11 (I1)												
MNW-11 (I1)	I1	F1DF3	MNW-11-I1-2	4/19/05 9:32	0.5 U	0.64 =	0.23 LJ	0.5 U	0.5 U			
MNW-11 (I1)	I1	F1DF4	MNW-11-I1-7	4/19/05 9:35	0.5 U	0.63 =	0.23 LJ	0.5 U	0.5 U			
MNW-11 (I1)	I1	F1DF6	MNW-11-I1-12	4/19/05 9:38	0.5 U	0.43 LJ	0.5 U	0.5 U	0.5 U			
MNW-11 (I1)	I1	F1NK5	MNW-11-I1-2	7/11/05 8:58	0.5 U	0.77 =	0.32 LJ	0.5 U	0.5 U			
MNW-11 (I1)						0.86 =	0.31 LJ	0.5 U	0.5 U			
MNW-11 (I1)	NW-11 (I1)					0.59 =	0.27 LJ	0.5 U	0.5 U			
MNW-11 (I1)						0.66 =	0.5 U	0.5 U	0.5 U			
MNW-11 (I1)						0.5 U	0.5 U	0.5 U	0.5 U			
MNW-11 (I1)	I1	MNW-11-I1_070219	MNW-11-I1-7	2/19/07 14:19	0.5 UJ 0.5 U	0.7 JL	0.5 UJ	0.5 UJ	0.5 UJ			
MNW-11 (I1)	` ' /						0.5 U	0.5 U	0.5 U			
MNW-11 (I1)	I1	F2RR9	MNW-11-I1-7	4/14/08 0:00	0.5 U	0.88 =	0.37 LJ	0.5 U	0.5 U			

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	Table 1Summary of chlorinated organic compounds that have been detected at the Site.											
		Volatile Organic Con	npounds		(PCE)	(TCE)	(cis-1,2- DCE)	(trans- 1,2- DCE)	Vinyl Chloride			
			NM WQCC Sta	ndards (µg/L) :	20	100	1x10 ⁶ risk		1			
			EPA	MCLs (μg/L) :	5	5	70	100	2			
			Cancer Beno	chmark (μg/L) :	0.67		none					
			Non Cancer Bend	chmark (µg/L) :	350		350					
Sample Location	Aquifer Zone	Sample ID	Location	Sample Date								
MNW-11 (I1)	I1	MNW-11-I1-7-Q408	MNW-11-I1-7	10/6/08 9:20	0.5 U	0.6 =	0.5 U	0.5 U	0.5 U			
MNW-11 (I1)	I1	MNW-11-I1-7-Q209	MNW-11-I1-7	4/20/09 13:05	0.5 U	0.7 =	0.6 =	0.5 U	0.5 U			
MNW-11 (I1)	I1	MNW-11-I1-5-Q111	MNW-11-I1-5	2/16/11 10:21	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-11 (I2)												
MNW-11 (I2)	I2	F1DF7	MNW-11-I2-2	4/19/05 9:53	0.5 U	1.8 =	0.64 =	0.5 U	0.5 U			
MNW-11 (I2)	I2	F1DF8	MNW-11-I2-7	4/19/05 9:55	0.5 U	3 =	0.97 =	0.05 LJ	0.5 U			
MNW-11 (I2)	I2	F1DF9	MNW-11-I2-12	4/19/05 9:58	0.5 U	2.8 =	0.96 =	0.5 U	0.5 U			
MNW-11 (I2)	I2	F1P97	MNW-11-I2-17	7/11/05 9:27	0.5 U	3.7 =	1.3 =	0.5 U	0.5 U			
MNW-11 (I2)	I2	F1NK2	MNW-11-I2-2	7/11/05 9:30	0.5 U	2.3 =	1 =	0.5 U	0.5 U			
MNW-11 (I2)	I2	F1NK3	MNW-11-I2-7	7/11/05 9:31	0.5 U	3.8 =	1.4 =	0.5 U	0.5 U			
MNW-11 (I2)	I2	F1NK8	MNW-11-I2-12	7/11/05 9:35	0.5 U	3.7 =	1.4 =	0.5 U	0.5 U			
MNW-11 (I2)	I2	F1YM8	MNW-11-I2-2	2/6/06 9:40	0.5 U	2 =	0.68 =	0.5 U	0.5 U			
MNW-11 (I2)	I2	F1YN0	MNW-11-I2-12	2/6/06 9:42	0.5 U	3.5 =	1.2 =	0.5 U	0.5 U			
MNW-11 (I2)	I2	F2648	MNW-11-I2-12	8/29/06 10:10	0.5 U	1.4 =	0.69 =	0.5 U	0.5 U			
MNW-11 (I2)	I2	MNW-11-I2_070219	MNW-11-I2-12	2/19/07 14:50	0.5 UJ	1.4 JL	0.9 JL	0.7 JL	0.5 UJ			
MNW-11 (I2)	I2	MNW-11-I2-12-Q407	MNW-11-I2-12	10/1/07 9:13	0.5 U	1.1 =	0.8 =	0.6 =	0.5 U			
MNW-11 (I2)	I2	F2RS0	MNW-11-I2-12	4/14/08 0:00	0.5 U 0.5 U	0.92 = 0.7 =	0.79 =	0.49 LJ	0.5 U			
MNW-11 (I2)	MNW-11 (I2) I2 MNW-11-I2-12-Q408 MNW-11-I2-12 10/6/08 9						0.6 =	0.5 U	0.5 U			
MNW-11 (I2)							0.5 U	0.5 U	0.5 U			
MNW-11 (I2)	9						0.5 U	0.5 U	0.5 U			
MNW-11 (I2)	I2	MNW-11-I2-8-Q111	MNW-11-I2-8	2/16/11 10:38	0.5 U	0.6 =	0.5 U	0.5 U	0.5 U			
MNW-11 (D1)	INW-11 (D1)											
MNW-11 (D1)	D1	F1DG0	MNW-11-D1-2	4/19/05 10:06	0.5 U	14 =	2.8 =	0.13 LJ	0.5 U			

	Table 1Summary of chlorinated organic compounds that have been detected at the Site.											
		Volatile Organic Con	mpounds		(PCE)	(TCE)	(cis-1,2- DCE)	(trans- 1,2- DCE)	Vinyl Chloride			
			NM WQCC Sta	ndards (μg/L) :	20	100	1x10 ⁶ risk		1			
			EPA	MCLs (μg/L):	5	5	70	100	2			
			Cancer Bend	chmark (µg/L) :	0.67		none					
			Non Cancer Bend	chmark (µg/L) :	350		350					
Sample Location	Aquifer Zone	Sample ID	Location	Sample Date								
MNW-11 (D1)	D1	F1DG1	MNW-11-D1-7	4/19/05 10:09	0.5 U	14 =	3.1 =	0.12 LJ	0.5 U			
MNW-11 (D1)	D1	F1DG2	MNW-11-D1-12	4/19/05 10:11	0.5 U	14 =	3 =	0.13 LJ	0.5 U			
MNW-11 (D1)	D1	F1DG3	MNW-11-D1-17	4/19/05 10:14	0.5 U	14 =	2.9 =	0.12 LJ	0.5 U			
MNW-11 (D1)	D1	F1NK9	MNW-11-D1-2	7/11/05 8:25	0.5 U		4.4 =	0.22 LJ	0.12 LJ			
MNW-11 (D1)	D1	F1NK9DL	MNW-11-D1-2	7/11/05 8:25		25 =						
MNW-11 (D1)	D1	F1NL0	MNW-11-D1-7	7/11/05 8:27	0.5 U	20 =	3.4 =	0.17 LJ	0.15 LJ			
MNW-11 (D1)	D1	F1NL1	MNW-11-D1-12	7/11/05 8:30	0.5 U	11 =	2.2 =	0.5 U	0.5 U			
MNW-11 (D1)	D1	F1NL2	MNW-11-D1-17	7/11/05 8:33	0.5 U	13 =	3 =	0.14 LJ	0.5 U			
MNW-11 (D1)	D1	F1YN1	MNW-11-D1-2	2/6/06 9:50	0.5 U	20 =	5 =	4.1 =	0.5 U			
MNW-11 (D1)	D1	F1YN2	MNW-11-D1-7	2/6/06 9:53	0.5 U	17 J	4.9 =	4.4 =	0.5 U			
MNW-11 (D1)	D1	F1YN3	MNW-11-D1-12	2/6/06 9:56	0.5 U	16 =	5.2 =	5 =	0.5 U			
MNW-11 (D1)	D1	F1YN4	MNW-11-D1-17	2/6/06 10:00	0.5 U	16 =	5.1 =	5.6 =	0.5 U			
MNW-11 (D1)	D1	F2646	MNW-11-D1-2	8/29/06 10:20	0.5 U		4.6 =	0.68 =	0.5 U			
MNW-11 (D1)	D1	F2646DL	MNW-11-D1-2	8/29/06 10:20		32 =						
MNW-11 (D1)	D1	MNW-11-D1-2_070219	MNW-11-D1-2	2/19/07 14:25	0.5 UJ	24.9 JL	5.6 JL	4.2 JL	0.5 UJ			
MNW-11 (D1)	D1	MNW-11-D1-7_070219	MNW-11-D1-7	2/19/07 14:35	0.5 UJ	22.9 JL	5.4 JL	4.2 JL	0.5 UJ			
MNW-11 (D1)	9					22.6 JL	5.5 JL	4.3 JL	0.5 UJ			
MNW-11 (D1)	D1	MNW-11-D1-17_07021 9	MNW-11-D1-17	2/19/07 14:40	0.5 UJ	22.7 JL	5.5 JL	4.4 JL	0.5 UJ			
MNW-11 (D1)	D1	MNW-11-D1-2-Q407	MNW-11-D1-2	10/1/07 9:20	0.5 U	28.1 =	6.3 =	4.2 =	0.5 U			
MNW-11 (D1)	` '						0.5 U	0.5 U	0.5 U			
MNW-11 (D1)	D1	MNW-11-D1-12-Q407	MNW-11-D1-12	10/1/07 9:27	0.5 U	25.6 =	6.7 =	4.5 =	0.5 U			

	Table 1Summary of chlorinated organic compounds that have been detected at the Site.											
		Volatile Organic Con	mpounds		(PCE)	(TCE)	(cis-1,2- DCE)	(trans- 1,2- DCE)	Vinyl Chloride			
			NM WQCC Sta	ndards (µg/L) :	20	100	1x10 ⁶ risk		1			
			EPA	MCLs (μg/L):	5	5	70	100	2			
			Cancer Bend	chmark (μg/L) :	0.67		none					
			Non Cancer Bend	chmark (μg/L) :	350		350					
Sample Location	Aquifer Zone	Sample ID	Location	Sample Date								
MNW-11 (D1)	D1	MNW-11-D1-17-Q407	MNW-11-D1-17	10/1/07 9:30	0.5 U	26.6 =	6.6 =	4.8 =	0.5 U			
MNW-11 (D1)	D1	F2RS2	MNW-11-D1-2	4/14/08 0:00	0.5 U	20 =	7. 5 =	4.8 =	0.5 U			
MNW-11 (D1)	D1	F2RS3	MNW-11-D1-7	4/14/08 0:00	0.5 U	24 =	8.6 =	6.2 =	0.5 U			
MNW-11 (D1)	D1	F2RS4	4/14/08 0:00	0.5 U	35 =	7.1 =	4.8 =	0.5 U				
MNW-11 (D1)	D1	F2RS5	4/14/08 0:00	0.5 U	25 =	8.5 =	6 =	0.5 U				
MNW-11 (D1)	D1	MNW-11-D1-2-Q408	MNW-11-D1-2	10/6/08 9:35	0.5 U	32.1 J	7.1 =	3.1 =	0.5 U			
MNW-11 (D1)	D1	MNW-11-D1-2-Q209	MNW-11-D1-2	4/20/09 13:30	0.5 U	33.1 J	6.8 =	3.8 =	0.5 U			
MNW-11 (D1)	D1	F3B26	MNW-11-D1-2	10/26/09 11:03	0.5 U	25 =	6.9 =	3.7 =	0.5 U			
MNW-11 (D1)	D1	MNW-11-D1-2_100202	MNW-11-D1-2	2/2/10 9:50	0.5 U	33.6 =	7.2 =	4.1 =	0.5 U			
MNW-11 (D1)	D1	F3LQ8	MNW-11-D1-2-Q310	9/2/10 13:15	0.5 U	31 =	5.9 =	3.8 =	0.5 U			
MNW-11 (D1)	D1	MNW-11-D1-2-Q111	MNW-11-D1-2	2/16/11 10:30	0.5 U	35.2 =	8 =	5.6 J	0.5 U			
MNW-11 (D1)	D1	F4EA8	MNW-11-D1-2-Q311	8/22/11 13:17	5.0 U	46 =	10 =	6.6 =	2.0 U			
MNW-11 (D1)	D1	F5G10	MNW-11-D1-2	2/27/12 10:10	0.5 U		6.3 =	4.2 =	0.5 U			
MNW-11 (D1)	D1	F5G10DL	MNW-11-D1-2	2/27/12 10:10		27 =						
MNW-11 (D1)	D1	F6CE3	MNW-11-D1-2	8/20/12 13:30	0.5 U	46 =	11 =	5.6 =	0.5 U			
MNW-11 (D2)												
MNW-11 (D2)	D2	F1DG4	MNW-11-D2-2	4/19/05 10:21	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-11 (D2)							0.5 U	0.5 U	0.5 U			
MNW-11 (D2)	· · ·						0.5 U	0.5 U	0.5 U			
MNW-11 (D2)	NW-11 (D2) D2 F1DG7 MNW-11-D2-17 4/19/05 10:						0.5 U	0.5 U	0.5 U			
MNW-11 (D2)							0.5 U	0.5 U	0.5 U			
MNW-11 (D2)	D2	F1NL4	MNW-11-D2-7	7/11/05 8:46	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-11 (D2)	D2	F1NL5	MNW-11-D2-12	7/11/05 8:48	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			

	Table 1Summary of chlorinated organic compounds that have been detected at the Site.											
		Volatile Organic Co	mpounds		(PCE)	(TCE)	(cis-1,2- DCE)	(trans- 1,2- DCE)	Vinyl Chloride			
			NM WQCC Sta	ndards (µg/L) :	20	100	1x10 ⁶ risk		1			
			EPA	MCLs (μg/L) :	5	5	70	100	2			
			Cancer Bend	hmark (µg/L) :	0.67		none					
			Non Cancer Benc	, 0	350		350					
Sample Location	Aquifer Zone	Sample ID	Location	Sample Date								
MNW-11 (D2)	D2	F1NL6	MNW-11-D2-17	7/11/05 8:52	0.22 LJ	0.14 LJ	0.5 U	0.5 U	0.5 U			
MNW-11 (D2)	D2	MNW-11-D2-2-Q111	MNW-11-D2-2	2/16/11 10:47	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-11 (D2)	D2	MNW-11-D2-7-Q111	MNW-11-D2-7	2/16/11 10:48	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-11 (D2)	D2	MNW-11-D2-12-Q111	MNW-11-D2-12	2/16/11 10:51	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-11 (D2)	D2	MNW-11-D2-17-Q111	MNW-11-D2-17	2/16/11 10:53	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-11 (D2)	D2	F4EB1	MNW-11-D2-2-Q311	8/22/11 13:05	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U			
MNW-11 (D2)	D2	F4EB2	MNW-11-D2-7-Q311	8/22/11 13:06	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U			
MNW-11 (D2)	D2	F4EA9	MNW-11-D2-12-Q311	8/22/11 13:08	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U			
MNW-11 (D2)	D2	F4EB0	MNW-11-D2-17-Q311	8/22/11 13:10	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U			
MNW-11 (D2)	D2	F5G13	MNW-11-D2-2	2/27/12 9:45	0.5 U	0.15 LJ	0.5 U	0.5 U	0.5 U			
MNW-11 (D2)	D2	F5G14	MNW-11-D2-7	2/27/12 9:48	0.5 U	0.097 LJ	0.5 U	0.5 U	0.5 U			
MNW-11 (D2)	D2	F5G11	MNW-11-D2-12	2/27/12 9:50	0.5 U	0.12 LJ	0.5 U	0.5 U	0.5 U			
MNW-11 (D2)	D2	F5G12	MNW-11-D2-17	2/27/12 9:52	0.5 U	0.099 LJ	0.5 U	0.5 U	0.5 U			
MNW-12 (I1)												
MNW-12 (I1)	I1	F1DG8	MNW-12-I1-2	4/18/05 14:25	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-12 (I1)	I1	F1DG9	MNW-12-I1-7	4/18/05 14:29	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-12 (I1)	I1	F1DH0	MNW-12-I1-12	4/18/05 14:32	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-12 (I1)	I1	F1NL7	MNW-12-I1-2	7/11/05 10:28	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-12 (I1)	I1	F1NL8	MNW-12-I1-7	7/11/05 10:31	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-12 (I1)	I1	F1NL9	MNW-12-I1-12	7/11/05 10:32	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			

	Table 1Summary of chlorinated organic compounds that have been detected at the Site.											
		Volatile Organic Co	mpounds		(PCE)	(TCE)	(cis-1,2- DCE)	(trans- 1,2- DCE)	Vinyl Chloride			
			NM WQCC Star	ndards (µg/L) :	20	100	1x10 ⁶ risk		1			
			EPA	MCLs (μg/L):	5	5	70	100	2			
			Cancer Benc	hmark (µg/L) :	0.67		none					
			Non Cancer Benc	hmark (µg/L) :	350		350					
Sample Location	Aquifer Zone	Sample ID	Location	Sample Date								
MNW-12 (I1)	I1	MNW-12-I1-2-Q111	MNW-12-I1-2	2/16/11 9:03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-12 (I1)	I1	MNW-12-I1-5-Q111	MNW-12-I1-7	2/16/11 9:05	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-12 (I1)	I1	MNW-12-I1-8-Q111	MNW-12-I1-12	2/16/11 9:07	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-12 (I1)	I1	F4ED3	MNW-12-I1-2-Q311	8/22/11 10:04	5.0 U 5.0 U	5.0 U 5.0 U	5.0 U	5.0 U	2.0 U			
MNW-12 (I1)	W-12 (I1) I1 F4EB7 MNW-12-I1-7-Q311 8/22/11						5.0 U	5.0 U	2.0 U			
MNW-12 (I1)	I1	F4EB8	MNW-12-I1-7-FD-Q311	8/22/11 10:06	5.0 U 5.0 U	5.0 U	5.0 U	5.0 U	2.0 U			
MNW-12 (I1)	I1	F4EB9	F4EB9 MNW-12-I1-12-Q311 8/22/11 10:07				5.0 U	5.0 U	2.0 U			
MNW-12 (I1)	I1	F5G21	MNW-12-I1-2	2/27/12 8:48	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-12 (I1)	I1	F5G22	MNW-12-I1-5	2/27/12 8:50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-12 (I1)	I1	F5G23	MNW-12-I1-8	2/27/12 8:52	0.5 U	0.75 =	0.49 LJ	0.5 U	0.5 U			
MNW-12 (I2)												
MNW-12 (I2)	I2	F1DH1	MNW-12-I2-2	4/18/05 14:38	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-12 (I2)	I2	F1DH2	MNW-12-I2-7	4/18/05 14:42	0.5 U	0.5 U	0.5 UJv	0.5 UJv	0.5 U			
MNW-12 (I2)	I2	F1DH3	MNW-12-I2-12	4/18/05 14:45	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-12 (I2)	I2	F1NM0	MNW-12-I2-2	7/11/05 10:39	0.13 LJ	0.5 U	0.5 U	0.5 U	0.11 LJ			
MNW-12 (I2)	I2	F1NM1	MNW-12-I2-7	7/11/05 10:41	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-12 (I2)	I2	F1NM2	MNW-12-I2-12	7/11/05 10:42	0.5 U 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-12 (I2)	NW-12 (I2)					0.5 U	0.5 U	0.5 U	0.5 U			
MNW-12 (I2)	` '					0.5 U	0.5 U	0.5 U	0.5 U			
MNW-12 (I2)						0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ			
MNW-12 (I2)	I2	MNW-12-I2-7-Q407	MNW-12-I2-7	10/1/07 9:51	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-12 (I2)	I2	F2RS6	MNW-12-I2-7	4/14/08 0:00	0.5 U	2.3 =	0.8 =	0.5 U	0.5 U			
MNW-12 (I2)	I2	MNW-12-I2-7-Q408	MNW-12-I2-7	10/6/08 8:43	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
MNW-12 (I2)	I2	MNW-12-I2-7-Q209	MNW-12-I2-7	4/20/09 14:48	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			

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Table 1Summary of chlorinated organic compounds that have been detected at the Site.											
		Volatile Organic Con	mpounds		(PCE)	(TCE)	(cis-1,2- DCE)	(trans- 1,2- DCE)	Vinyl Chloride		
			NM WQCC St	andards (µg/L) :	20	100	1x10 ⁶ risk		1		
			EPA	A MCLs (μg/L):	5	5	70	100	2		
			Cancer Ben	chmark (µg/L) :	0.67		none				
			Non Cancer Ben	chmark (µg/L) :	350		350				
Sample Location	Aquifer Zone	Sample ID	Location	Sample Date							
MNW-12 (I2)	I2	MNW-12-I2-5-Q111	MNW-12-I2-5	2/16/11 9:30	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		
MNW-12 (D1)											
MNW-12 (D1)	D1	F1DH4	MNW-12-D1-2	4/18/05 14:54	0.5 U	1.4 =	0.41 LJ	0.5 U	0.5 U		
MNW-12 (D1)	D1	F1DH5	MNW-12-D1-7	4/18/05 14:57	0.5 U	1.5 =	0.44 LJ	0.5 U	0.5 U		
MNW-12 (D1)	D1	F1DH6	MNW-12-D1-12	4/18/05 15:04	0.5 U	1.5 =	0.4 LJ	0.5 U	0.5 U		
MNW-12 (D1)	D1	F1DH8	MNW-12-D1-17	4/18/05 15:11	0.5 U	1.5 J	0.48 LJ	0.5 U	0.5 U		
MNW-12 (D1)	D1	F1NM3	MNW-12-D1-2	7/11/05 10:50	0.5 U	1.8 =	0.76 =	0.5 U	0.1 LJ		
MNW-12 (D1)	D1	F1NM4	MNW-12-D1-7	7/11/05 10:51	0.5 U	2.4 =	0.73 =	0.5 U	0.5 U		
MNW-12 (D1)	D1	F1NM5	MNW-12-D1-12	7/11/05 10:53	0.5 U	3.1 =	0.46 LJ	0.5 U	0.5 U		
MNW-12 (D1)	D1	F1NM7	MNW-12-D1-17	7/11/05 10:56	0.5 U	2.9 J	0.52 =	0.5 U	0.5 U		
MNW-12 (D1)	D1	F1YN6	MNW-12-D1-7	2/6/06 11:46	0.5 U	2.5 =	0.64 =	0.5 U	0.5 U		
MNW-12 (D1)	D1	F1YN7	MNW-12-D1-12	2/6/06 11:48	0.5 U	2.9 =	0.71 =	0.5 U	0.5 U		
MNW-12 (D1)	D1	F1YN8	MNW-12-D1-17	2/6/06 11:50	0.5 U	2.8 =	0.71 =	0.5 U	0.5 U		
MNW-12 (D1)	D1	F2650	MNW-12-D1-12	8/29/06 10:45	0.5 U	2.2 J	0.5 U	0.5 U	0.5 U		
MNW-12 (D1)	D1	MNW-12-D1-12_07021 9	MNW-12-D1-12	2/19/07 14:58	0.5 UJ	3.1 JL	0.9 JL	0.5 UJ	0.5 UJ		
MNW-12 (D1)	D1	MNW-12-D1-12-Q407	MNW-12-D1-12	10/1/07 10:00	0.5 U	3.2 =	0.9 =	0.5 U	0.5 U		
MNW-12 (D1)	D1	F2RS7	MNW-12-D1-12	4/14/08 0:00	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		
MNW-12 (D1)	D1	MNW-12-D1-12-Q408	MNW-12-D1-12	10/6/08 8:21	0.5 U	1.6 =	0.5 U	0.5 U	0.5 U		
MNW-12 (D1)	D1	MNW-12-D1-12_10020 2	MNW-12-D1-12	2/2/10 10:10	0.5 U	1.3 =	0.7 =	0.5 U	0.5 U		
MNW-12 (D1)	D1	MNW-12-D1-12-Q111	MNW-12-D1-12	2/16/11 9:20	0.5 U	1.4 =	0.7 =	0.5 U	0.5 U		
MNW-12 (D1)	D1	MNW-12-D1-12-Q111- FD	MNW-12-D1-12	2/16/11 9:25	0.5 U	1.4 =	0.6 =	0.5 U	0.5 U		

Volatile Organic Corporates		Table 1Summary of chlorinated organic compounds that have been detected at the Site.											
Cancer Benchmark (µg/L): 0.67 0			Volatile Organic Co	mpounds		(PCE)	(TCE)		1,2-				
Non Cancer Benchmark (µg/L): 0.67 None				NM WQCC Sta	ndards (µg/L) :	20	100	1x10 ⁶ risk		1			
Non Cancer Benchmark (μg/L):						5	5	70	100	2			
Name				Cancer Bend	hmark (μg/L) :	0.67		none					
No. No.				Non Cancer Bend	hmark (μg/L) :	350		350					
MNW-12 (D1) D1			Sample ID	Location	Sample Date								
MNW-12 (D2) D2 F1DH9 MNW-12-D2-2 4/18/05 15:21 0.5 U	MNW-12 (D1)	D1	F5G15	MNW-12-D1-12	2/27/12 9:03	0.5 U		0.5 U	0.5 U	0.5 U			
MNW-12 (D2) D2 F1DJ0 MNW-12-D2-7 4/18/05 15:24 0.5 U	MNW-12 (D2)												
MNW-12 (D2) D2 F1DJ1 MNW-12-D2-12 4/18/05 15:27 0.5 U 0.5	` ′												
MNW-12 (D2) D2 F1DJ2 MNW-12-D2-17 4/18/05 15:31 0.5 U 0.5 U 0.44 LJ 0.5 U 0.16 LJ MNW-12 (D2) D2 F1NM8 MNW-12-D2-2 7/11/05 11:09 0.5 U	` '												
MNW-12 (D2) D2 F1NM8 MNW-12-D2-2 7/11/05 11:09 0.5 U	` ′												
MNW-12 (D2) D2 F1NM9 MNW-12-D2-7 7/11/05 11:10 0.5 U	\ /												
MNW-12 (D2) D2 F1NN0 MNW-12-D2-12 7/11/05 11:13 0.5 U 0.5	` '												
MNW-12 (D2) D2 F1NN1 MNW-12-D2-17 7/11/05 11:15 0.5 U 0.5					_								
MNW-12 (D2) D2 MNW-12-D2-2-Q111 MNW-12-D2-2 2/16/11 9:37 0.5 U	` /												
MNW-12 (D2) D2 MNW-12-D1-7-Q111 MNW-12-D2-7 2/16/11 9:40 0.5 U	` '												
MNW-12 (D2) D2 MNW-12-D2-12-Q111 MNW-12-D2-12 2/16/11 9:42 0.5 U					_								
MNW-12 (D2) D2 MNW-12-D2-17-Q111 MNW-12-D2-17 2/16/11 9:45 0.5 U	` '												
MNW-12 (D2) D2 F4EB5 MNW-12-D2-2-Q311 8/22/11 9:45 5.0 U 5.0 U 5.0 U 5.0 U 2.0 U MNW-12 (D2) D2 F4EB6 MNW-12-D2-7-Q311 8/22/11 9:46 5.0 U 5.0 U 5.0 U 5.0 U 5.0 U 2.0 U MNW-12 (D2) D2 F4EB3 MNW-12-D2-12-Q311 8/22/11 9:47 5.0 U 2.0 U MNW-12 (D2) D2 F4EB4 MNW-12-D2-17-Q311 8/22/11 9:49 5.0 U	` '												
MNW-12 (D2) D2 F4EB6 MNW-12-D2-7-Q311 8/22/11 9:46 5.0 U 5.0 U 5.0 U 5.0 U 2.0 U MNW-12 (D2) D2 F4EB3 MNW-12-D2-12-Q311 8/22/11 9:47 5.0 U 5.0 U 5.0 U 5.0 U 5.0 U 2.0 U MNW-12 (D2) D2 F4EB4 MNW-12-D2-17-Q311 8/22/11 9:49 5.0 U 2.0 U MNW-12 (D2) D2 F5G19 MNW-12-D2-2 2/27/12 8:30 0.5 U 0.5 U <td< td=""><td></td><td></td><td></td><td></td><td>_</td><td></td><td></td><td></td><td></td><td></td></td<>					_								
MNW-12 (D2) D2 F4EB3 MNW-12-D2-12-Q311 8/22/11 9:47 5.0 U 5.0 U 5.0 U 5.0 U 2.0 U MNW-12 (D2) D2 F4EB4 MNW-12-D2-17-Q311 8/22/11 9:49 5.0 U 5.0 U 5.0 U 5.0 U 5.0 U 2.0 U MNW-12 (D2) D2 F5G19 MNW-12-D2-2 2/27/12 8:30 0.5 U	` ,												
MNW-12 (D2) D2 F4EB4 MNW-12-D2-17-Q311 8/22/11 9:49 5.0 U	` ′												
MNW-12 (D2) D2 F5G19 MNW-12-D2-2 2/27/12 8:30 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U MNW-12 (D2) D2 F5G20 MNW-12-D2-7 2/27/12 8:32 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U MNW-12 (D2) D2 F5G16 MNW-12-D2-12 2/27/12 8:20 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U MNW-12 (D2) D2 F5G17 MNW-12-D2-12-FD 2/27/12 8:25 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U					_								
MNW-12 (D2) D2 F5G20 MNW-12-D2-7 2/27/12 8:32 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U MNW-12 (D2) D2 F5G16 MNW-12-D2-12 2/27/12 8:20 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U MNW-12 (D2) D2 F5G17 MNW-12-D2-12-FD 2/27/12 8:25 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U	, ,												
MNW-12 (D2) D2 F5G16 MNW-12-D2-12 2/27/12 8:20 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U MNW-12 (D2) D2 F5G17 MNW-12-D2-12-FD 2/27/12 8:25 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U	` ′												
MNW-12 (D2) D2 F5G17 MNW-12-D2-12-FD 2/27/12 8:25 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U													
MNW-12 (D2) D2 F5G18 MNW-12-D2-17 2/27/12 8:27 0.5 U 0.5 U 0.5 U 0.5 U 0.5 U	` '												
	MNW-12 (D2) SFMW-14 (D1)	D2	F5G18	MNW-12-D2-17	2/27/12 8:27	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			

	Table 1Summary of chlorinated organic compounds that have been detected at the Site.										
		Volatile Organic Co	mpounds		(PCE)	(TCE)	(cis-1,2- DCE)	(trans- 1,2- DCE)	Vinyl Chloride		
			NM WQCC Star	ndards (µg/L) :	20	100	1x10 ⁶ risk		1		
			EPA	MCLs (μg/L):	5	5	70	100	2		
			Cancer Bench	hmark (μg/L) :	0.67		none				
			Non Cancer Bench	hmark (µg/L) :	350		350				
Sample Location	Aquifer Zone	Sample ID	Location	Sample Date							
SFMW-14 (D1)	D1	FQ887		11/13/97 0:00	1 U	1 U	1 U	1 U	1 U		
SFMW-14 (D1)	D1	FGF54		7/28/99 0:00	1 U	1 U	1 U	1 U	1 U		
SFMW-14 (D1)						4.6 =	0.5 U	0.5 U	0.5 U		
SFMW-14 (D1)	D1	SFMW-14-D1-5-Q111	SFMW-14-D1-5	2/14/11 9:05	0.5 U	4.3 =	0.5 U	0.5 U	0.5 U		
SFMW-14 (D1)	D1	SFMW-14-D1-8-Q111	SFMW-14-D1-8	2/14/11 9:02	0.5 U	4.5 =	0.5 U	0.5 U	0.5 U		
SFMW-14 (D1)	D1	F4ED7	SFMW-14-D1-2-Q311	8/22/11 14:30	5.0 U	7.4 =	5.0 U	5.0 U	2.0 U		
SFMW-14 (D1)	D1	F4ED8	SFMW-14-D1-5-Q311	8/22/11 14:31	5.0 U	6.9 =	5.0 U	5.0 U	2.0 U		
SFMW-14 (D1)	D1	F4ED9	SFMW-14-D1-8-Q311	8/22/11 14:32	5.0 U	8.5 =	5.0 U	5.0 U	2.0 U		
SFMW-14 (D1)	D1	F4EE0	SFMW-14-D1-8-FD-Q311	8/22/11 14:33	5.0 U	7.9 =	5.0 U	5.0 U	2.0 U		
SFMW-14 (D1)	D1	F5G44	SFMW-14-D1-2	2/27/12 10:34	0.5 U	7.3 =	0.58 =	0.5 U	0.5 U		
SFMW-14 (D1)	D1	F5G45	SFMW-14-D1-5	2/27/12 10:36	0.5 U	8.7 = 7.5 =	0.65 =	0.5 U	0.5 U		
SFMW-14 (D1)							0.58 =	0.5 U	0.5 U		
SFMW-14 (D1)	D1	F6CB1	SFMW-14-D1-2	8/20/12 12:28	0.5 U	17 =	0.84 =	0.24 LJ	0.5 U		
SFMW-14 (D1)	D1	F6CB2	SFMW-14-D1-5	8/20/12 12:32	0.5 U	16 =	0.82 =	0.14 LJ	0.5 U		
SFMW-14 (D1)	D1	F6CB3	SFMW-14-D1-8	8/20/12 12:35	0.062 LJ	14 =	0.75 =	0.19 LJ	0.5 U		

Table 1 - Summary of chlorinated organic compounds that have been detected at the site. (Ref. 9, [Table 3-4 pp. 36, 37, 42, 43]; [Table 3-5 pp.59-68])

 $\mu g/L = micrograms \ per \ liter$

DCE = Dichloroethylene

 $PCE = Perchloroethylene \; (tetrachloroethylene) \;$

TCE = Trichloroethylene

MCL = maximum contaminant level

PDB = passive diffusion bag was used on all samples collected except for MNW-9 (I2) F1DA1 4/20/05 9:20

 $LFS = \overline{Low}$ -flow sampling

	Table 1Summary of chlorinated organic compounds that have been detected at the Site.											
	Volatile Organic Compounds					(TCE)	(cis-1,2- DCE)	(trans- 1,2- DCE)	Vinyl Chloride			
			NM WQCC Star	ndards (µg/L) :	20	100	1x10 ⁶ risk		1			
			EPA	MCLs (µg/L):	5	5	70	100	2			
			Cancer Bench	hmark (μg/L) :	0.67		none					
	Non Cancer Benchmark (μg/L) :						350					
Sample Location	Aquifer Zone	Sample ID	Location	Sample Date								

DL = diluted sample

U = not detected

= = detected concentration

J = estimated concentration

L = Reported concentration is below the Contract Required Quanitation Limit

v = Low biased. Actual concentration may be higher than the reported concentration.

^ = High biased. Actual concentration may be lower than the reported concentration.

		Table 2 2012 Sun	nmary of chlorinated orga	nic compounds dete	ected at	the Site	2.		
		Volatile Organic	Compounds		(PCE)	(TCE)	(cis-1,2- DCE)	(trans- 1,2- DCE)	Vinyl Chloride
			NM WQ0	CC Standards (µg/L) :	20	100	1x10 ⁶ risk		1
				EPA MCLs (μg/L):	5	5	70	100	2
				r Benchmark (μg/L):	0.67		none		
C1-	A* C		Non Cance	r Benchmark (μg/L) :	350		350		
Sample Location	Aquifer Zone	Sample ID	Location	Sample Date					
MNW-1 (I2)				•					
MNW-1 (I2)	I2	F5G86	MNW-1-I2-7	2/28/12 8:20	0.5 U	14 =	2.6 =	0.5 U	0.5 U
MNW-1 (I2)	I2	F6CA#	MNW-1-I2-7	8/20/2012 9:38	1.0 U	17 =	3.4 =	0.29 LJ	1.0 U
MNW-9 (I2)									
MNW-9 (I2)	I2	F5G43	MNW-9-I2-17	2/27/12 12:47	0.5 U	4.5 =	1.5 =	0.5 U	0.5 U
MNW-9 (I2)	I2	F6CE2	MNW-9-I2-17	8/20/12 13:46	0.032 LJ	5.4 J^	1.6 =	0.25 LJ	0.5 U
MNW-9 (D1)									
MNW-9 (D1)	D1	F5G42	MNW-9-D1-2	2/27/12 12:57	0.5 U	2.3 =	0.57 =	0.29 LJ	0.5 U
MNW-9 (D1)	D1	F6CE1	MNW-9-D1-2	8/20/12 13:49	0.048 LJ	4.6 J^	0.92 =	0.53 =	0.5 U
MNW-11 (D1)				·					
MNW-11 (D1)	D1	F5G10	MNW-11-D1-2	2/27/12 10:10	0.5 U		6.3 =	4.2 =	0.5 U
MNW-11 (D1)	D1	F5G10DL	MNW-11-D1-2	2/27/12 10:10		27 =			
MNW-11 (D1)	D1	F6CE3	MNW-11-D1-2	8/20/12 13:30	0.5 U	46 =	11 =	5.6 =	0.5 U
MNW-11 (D2)									
MNW-11 (D2)	D2	F5G13	MNW-11-D2-2	2/27/12 9:45	0.5 U	0.15 LJ	0.5 U	0.5 U	0.5 U

		Table 2 2012 Sumi	mary of chlorinated organ	ic compounds dete	ected at	the Site	2.		
		Volatile Organic C	ompounds		(PCE)	(TCE)	(cis-1,2- DCE)	(trans- 1,2- DCE)	Vinyl Chloride
			NM WQC	C Standards (µg/L) :	20	100	1x10 ⁶ risk		1
				EPA MCLs (μg/L) :	5	5	70	100	2
				Benchmark (µg/L):	0.67 350		none 350		
Sample Location	Aquifer Zone	Sample ID	Location Location	· Benchmark (μg/L) : Sample Date	330		330		
MNW-11 (D2)	D2	F5G14	MNW-11-D2-7	2/27/12 9:48	0.5 U	0.097 LJ	0.5 U	0.5 U	0.5 U
MNW-11 (D2)	D2	F5G11	MNW-11-D2-12	2/27/12 9:50	0.5 U	0.12 LJ	0.5 U	0.5 U	0.5 U
MNW-11 (D2)	D2	F5G12	MNW-11-D2-17	2/27/12 9:52	0.5 U	0.099 LJ	0.5 U	0.5 U	0.5 U
MNW-12 (I1)									
MNW-12 (I1)	I1	F5G21	MNW-12-I1-2	2/27/12 8:48	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-12 (I1)	I1	F5G22	MNW-12-I1-5	2/27/12 8:50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-12 (I1)	I1	F5G23	MNW-12-I1-8	2/27/12 8:52	0.5 U	0.75 =	0.49 LJ	0.5 U	0.5 U
MNW-12 (D1)									
MNW-12 (D1)	D1	F5G15	MNW-12-D1-12	2/27/12 9:03	0.5 U	0.25 LJ	0.5 U	0.5 U	0.5 U
MNW-12 (D2)									
MNW-12 (D2)	D2	F5G19	MNW-12-D2-2	2/27/12 8:30	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-12 (D2)	D2	F5G20	MNW-12-D2-7	2/27/12 8:32	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-12 (D2)	D2	F5G16	MNW-12-D2-12	2/27/12 8:20	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-12 (D2)	D2	F5G17	MNW-12-D2-12-FD	2/27/12 8:25	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-12 (D2)	D2	F5G18	MNW-12-D2-17	2/27/12 8:27	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MNW-14 (D1)									
SFMW-14 (D1)	D1	F5G44	SFMW-14-D1-2	2/27/12 10:34	0.5 U	7.3 =	0.58 =	0.5 U	0.5 U

	Table 2 2012 Summary of chlorinated organic compounds detected at the Site.								
	Volatile Organic Compounds (PCE) (TCE) (cis-1,2-								
			NM WQC	C Standards (μg/L) :	20	100	1x10 ⁶ risk		1
				EPA MCLs (μg/L):	5	5	70	100	2
			Cancer	Benchmark (µg/L):	0.67		none		
			Non Cancer	Benchmark (µg/L):	350		350		
Sample Location	Aquifer Zone	Sample ID	Location	Sample Date					
SFMW-14 (D1)	D1	F5G45	SFMW-14-D1-5	2/27/12 10:36	0.5 U	8.7 =	0.65 =	0.5 U	0.5 U
SFMW-14 (D1)	D1	F5G46	SFMW-14-D1-8	2/27/12 10:39	0.5 U	7.5 =	0.58 =	0.5 U	0.5 U
SFMW-14 (D1)	D1	F6CB1	SFMW-14-D1-2	8/20/12 12:28	0.5 U	17 =	0.84 =	0.24 LJ	0.5 U
SFMW-14 (D1)	D1	F6CB2	SFMW-14-D1-5	8/20/12 12:32	0.5 U	16 =	0.82 =	0.14 LJ	0.5 U
SFMW-14 (D1)	D1	F6CB3	SFMW-14-D1-8	8/20/12 12:35	0.062 LJ	14 =	0.75 =	0.19 LJ	0.5 U

Table 2 2012 Summary of chlorinated organic compounds that have been detected at the site. (Ref. 9, [Table 3-5 pp.59-68])

 $\mu g/L = micrograms per liter$

DCE = Dichloroethylene

 $PCE = Perchloroethylene \; (tetrachloroethylene) \;$

TCE = Trichloroethylene

MCL = maximum contaminant level

PDB = passive diffusion bag was used on all samples collected except for MNW-9 (I2) F1DA1 4/20/05 9:20

LFS = Low-flow sampling

DL = diluted sample

U = not detected

= = detected concentration

J = estimated concentration

L = Reported concentration is below the Contract Required Quanitation Limit

v = Low biased. Actual concentration may be higher than the reported concentration.

Table 2 2012 Summary of chlorinated organic compounds detected at the Site.									
	Volatile Organic Compounds					(TCE)	(cis-1,2- DCE)	(trans- 1,2- DCE)	Vinyl Chloride
	NM WQCC Standards (μg/L) :					100	1x10 ⁶ risk		1
	EPA MCLs (μg/L) :					5	70	100	2
	Cancer Benchmark (µg/L):						none		
Non Cancer Benchmark (μg/L) :					350	·	350		
Sample Location	Aquifer Zone	Sample ID	Location	Sample Date					

^{^ =} High biased. Actual concentration may be lower than the reported concentration.

Table 3 Potential Sources for the West Central Avenue Plume

	Site	Address	Data Source
1	Washtub Laundry	1105 Central Ave NW	Site Walk
2	Arts Transmission	1115 Central Ave NW	UST
3	Downtown Inn	1213 Central Ave NW	UST
4	Esco-Bio Chemicals Co. Inc.	1406 Central Ave. SW	City Dir - 1962
4	ESCO-BIO GHEITHCAIS CO. ITIC.	1400 Central Ave. Svv	City Dir - 1968
5	Electronics TV Laboratory	1406 Central Ave. SW	City Dir - 1973
			City Dir - 1973
6	Trader Duke's Corp (Jewelry Manufacture)	1408 Central Ave. SW	City Dir - 1978
			City Dir - 1983
7	The Neighbors Laundromat	1433 Central Ave. NW	City Dir - 1962
,	The Neighbors Lauridionial	1433 Central Ave. NVV	City Dir - 1973
8	Former Bell Trading Post (Jewelry Manufacture)	1503 Central Ave NW	NMED VRP
9	Used Auto Sales	1600 Central Ave SW	Sanborn - 1951
10	Central Paint and Body	1710 Central Ave SW	RCRA - SQG
11	Filling station/Auto Repair	1712/1716 Central Ave SW	Sanborn - 1951
12	Thriftway (Abandoned Plateau)	1720 Central Ave SW	LUST
13	Bulk Oil Station	1720/1722 Central Ave SW	Sanborn - 1942
14	World Motel (Rural Court)	1721 Central Ave NW	LUST
15	Kelly's Transmission Exchange	1816 Central Ave. SW	Site Walk
16	Marina's Dry Cleaners	1837 Central Ave. NW	Site Walk

(Ref. 3; Table 7)

Table 4 Aquifer Zones at Fruit Avenue Plume Superfund Site.

Zone	Approximate Depth (ft bgs)	Elevation (ft amsl)
Shallow	0 to 60	≥ 4,894
Intermediate 1 (I1)	61 to 85	4,893 to 4,868
Intermediate 2 (I2)	86 to 120	4,867 to 4,834
Deep 1 (D1)	121 to 150	4,833 to 4,804
Deep 2 (D2)	151 to 250	4,803 to 4,704
Deep 3 (D3)	251 to 350	4,703 to 4,604
Deep 4 (D4)	>350	<4,604

bgs - below ground surface amsl - above mean sea level (Ref. 20, p. 11).

Table 5 Active drinking water wells within Target Distance Limits (TDL), West Central Avenue Albuquerque, NM

Use Type		al ABCWUA Vell		& Multiple stic Well	Scho	ool Well		
TDL From Site (Miles)	Number of Wells	Population Served	Number of Wells	Population Served	Number of Wells	Population Served	Total Wells	Total Population
0 -0.5	0	0	4	10	0	0	4	10
0.5-1.0	0	0	23	56	0	0	23	56
1.0-2.0	5	34,597	256	620	0	0	261	35,216
2.0-3.0	9	62,274	654	1,583	1	35,000	664	98,857
3.0-4.0	10	69,193	337	816	0	0	347	70,009
Totals by category	24	166,064	1274	3,083	1	35,000	1299	204,147

(Ref. 29, pp.22)

Note: The OSE wells from the data base did not include a completion date. ABCWUA – Albuquerque Bernalillo County Water Utility Authority Average persons per household in Albuquerque is 2.42 (Ref. 6, p. 1)

5.0 List of References

U.S. Environmental Protection Agency. 40 CFR Part 300, Hazardous Ranking System, Appendix A, 55FR 51583. December 1990 (4 pages).

- 2 U.S. Environmental Protection Agency. Superfund Chemical Data Matrix (SCDM). June 1996 (14 pages).
- 3 CH2M HILL. Second Quarter 2005 Ground Water Sampling Event Summary and Well Installation Report: Version 1.1 Fruit Avenue Plume Superfund Site, Albuquerque, New Mexico. October 2005 (197 pages).
- Geographical Locater. Montana State University: UTM for Zone 13, easting 348962 meters, northing 3884132 meter. Accessed on April 1, 2012 (1 page). http://www.esg.montana.edu/gl/xy-data3.html
- 5 U.S. Geological Survey. 7.5 Minute Topographic Maps: Albuquerque West, NM (1990). Accessed on April 1, 2013 (1 page). http://store.usgs.gov
- 6 U.S. Census Bureau. Profile of General Demographic Characteristics: 2010 for Geographic Area: Albuquerque City, New Mexico. Accessed on April 1, 2013 (2 pages). http://quickfact.census.gov/qfd/states/35/3302000.html
- 7 U.S. Census Bureau. Profile of General Demographic Characteristics: 2010 for Geographic Area: Albuquerque City, New Mexico. Accessed on April 1, 2013 (2 pages). http://census.gov/2010census/popmap/ipmtext.php?fl=35/
- Western Regional Climate Center. Albuquerque WSO Airport, New Mexico (290234) Period of Record Monthly Climate Summary for Period of Record: 1/1/1914 to 9/30/2012. Accessed on April 2, 2013 (1 page). http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?nm0234
- 9 CH2M HILL. Fruit Avenue Plume Superfund Site Annual Ground Water Sampling Report for 2012. January 2013 (68 pages).
- Duke Engineering & Services. Phase II Site Characterization Report Former Bell Trading Post Property Albuquerque, New Mexico. November 2001 (53 pages).
- New Mexico Environment Department Voluntary Remediation Program Application for Determination of Eligibility. June 2003 (12 pages).
- 12 INTERA. Voluntary Remediation Completion Report Former Bell Trading Post Facility Albuquerque, New Mexico. September 2005 (28 pages).

- Realtor.com, 1503 Central Avenue NW Albuquerque, New Mexico 87401. Accessed on July 8, 2013 (5 pages).

 http://www.realtor.com/realestateandhomes-detail/1503-Central-Ave-Nw_Albuquerque_NM-87104_M25653-77563-77563.
- Bio Tech Remediation Inc., On-Site Investigation MSA Task #4 For the Horn Property #60117 1720 Central Ave. Albuquerque, New Mexico Prepared for the New Mexico Environment Department. September 26, 1995 (20 pages).
- New Mexico Environment Department. Facility #31671, Release ID# 1163 No Further Action Status at the Former World Court Corporation, 1801 Central Ave. NW, Albuquerque, NM. July 29, 2005 (1 page).
- New Mexico Environment Department, Underground Storage Tank Removal and Inspection Report Documents, Case #270, Arts Transmission,1115 Central Ave Albuquerque, New Mexico. November 1990 (16 pages).
- New Mexico Environment Department, Tank Closure Work Sheet and Inspection Report, Case # 1289 Downtown Inn 1213 Central Avenue NW, Albuquerque New Mexico. August, 2004 (5 pages).
- New Mexico Environment Department, Pre-CERCLIS Screening Assessment of the West Central Avenue-Albuquerque Site, Albuquerque, New Mexico: Further Action under CERCLA Recommended, October 2011 (10 pages).
- New Mexico Environment Department, Site Discovery Form for West Central Avenue-Albuquerque Site - Albuquerque, New Mexico. March 2011(2 pages).
- Duke Engineering & Services, USEPA Remedial Investigation Report Fruit Avenue Plume SiteVolume I, Main Text CERCLIS ID No.NMD986668911. March 6, 2001 (23 pages).
- Completion Exhibit "B" State of New Mexico Environment Department Voluntary Remediation Program Affidavit of Completion of Voluntary Remediation. Former "Bell Trading Post Site" located at 1503 Central Ave. SW. October 7, 2005 (2 pages).
- United States Environmental Protection Agency, Technical Factsheet on: Trichloroethylene. Accessed July 22, 2009 (3 pages). http://www.epa.gov/safewater/pdfs/factsheets/voc/tech/trichlor.pdf.
- University of Minnesota, Biocatalysis/Biodegradation Database, Tetrachloroethene Pathway Map (Anaerobic). Accessed July 22, 2009 (2 pages) http://umbbd.ethz.ch/tce/tce2/tce2_map.html.

- USEPA Region 6 Superfund & NMED, Fruit Avenue Plume Superfund Site First Five Year Review CERCLIS Site ID NMD98666911. December 2011 (24 pages).
- Albuquerque Bernalillo City Water Utility Authority. July 22, 2012 (1 page). http://abcwua.org/San_Juan_Chama_Project.aspx/
- New Mexico Environment Department, Drinking Water Watch, Drinking Water Branch, Water Systems Details for the Albuquerque Water System, Bernalillo County, Water System Details. Accessed on July 23, 2013 (6 pages).

 https://eidea.nmenv.state.nm.us/DWW/JSP/WaterSystemDetail.jsp?tinwsys_is_number=35&tinwsys_st_code=NM&wsnumber=NM3510701.
- New Mexico Environment Department 2013. Record of Communication between Barbara Gastian of the Albuquerque Bernalillo City Water Utility Authority and Martyne Kieling and Phyllis Bustamante. July 23, 2013. (1 page).
- Albuquerque Bernalillo City Water Utility Authority. Accessed on July 22, 2012 (3 pages). http://abcwua.org/Water_Quality_by_Distribution_Zone.aspx/.
- New Mexico Environment Department, Drinking water Bureau, Sanitary Report for Albuquerque Bernalillo City Water Utility Authority. October 2007 (96 pages).
- New Mexico Office of the State Engineer, Water Rights Reporting System, Bernalillo County, New Mexico. Accessed on July, 2013 (22 pages). http://nmwrrs.ose.state.nm.us/nmwrrs/index.html/
- New Mexico Environment Department, Drinking Water Watch, Drinking Water Branch, Water Systems Details for the University of New Mexico, Bernalillo County, Water System Details. Accessed on August 16, 2013 (1 page).

 https://eidea.nmenv.state.nm.us/DWW/JSP/WaterSystemDetail.jsp?tinwsys_is_number=1721&tinwsys_st_code=NM&wsnumber=NM3575501
- New Mexico Environment Department, Drinking Water Watch, Drinking Water Branch, Water Systems Details for the Albuquerque Water System, Bernalillo County, Chem/Rad Samples. Accessed on August 15, 2013 (6 pages).

 https://eidea.nmenv.state.nm.us/DWW/JSP/NonTcrSamples.jsp?tinwsys_is_number=35
 https://eidea.nmenv.stat
- New Mexico Environment Department, Drinking Water Watch, Drinking Water Branch, Water Systems Details for the Albuquerque Water System, Bernalillo County, Chem/Rad Sample Results. Accessed on August 15, 2013 (31 pages).

 https://eidea.nmenv.state.nm.us/DWW/JSP/NonTcrSampleResults.jsp?sample_number=1
 5734&collection_date=07-28-

- 2005&tinwsys_is_number=35&tinwsys_st_code=NM&tsasampl_is_number=212624&ts asampl_st_code=NM&history=1&counter=0/.
- New Mexico Environment Department, cover letter, Submittal of the Preliminary Assessment Report for the Randolph Road and University Boulevard Site Bernalillo County, New Mexico, CERCLIS ID #NMN000606846. April 2008 (2 pages).
- New Mexico Environment Department, Preliminary Assessment Report, Randolph Road and University Boulevard Site Bernalillo County, New Mexico, CERCLIS ID #NMN000606846. March 2008 (6 pages).
- New Mexico Environment Department, Pre-CERCLIS Screening of the Yale Well #1 Site, Albuquerque, New Mexico: CERCLA Recommended. September 19, 2002 (5 pages).
- New Mexico Environment Department, Pre-CERCLIS Screening of the Yale Well #2 Site, Albuquerque, New Mexico: no further investigating under CERCLA Recommended. November 14, 2003 (9 pages).
- New Mexico Environment Department, Drinking Water Watch, Drinking Water Branch, Water Systems Details for the University of New Mexico, Bernalillo County, Chem/Rad Samples. Accessed on August 16, 2013 (2 pages).

 https://eidea.nmenv.state.nm.us/DWW/JSP/NonTcrSamples.jsp?tinwsys_is_number=1721

 <a href="https://eidea.nm.us/wiita/wiita/wiita/wiita/wiita/wiit
- New Mexico Environment Department, Drinking Water Watch, Drinking Water Branch, Water Systems Details for the University of New Mexico, Bernalillo County, Chem/Rad Sample Results. Accessed on August 16, 2013 (19 pages).

 <a href="https://eidea.nmenv.state.nm.us/DWW/JSP/NonTcrSampleResults.jsp?sample_number=OR200200285&collection_date=02-27-2002&tinwsys_is_number=1721&tinwsys_st_code=NM&tsasampl_is_number=141786&tsasampl_st_code=NM&history=1&counter=0
- New Mexico Environment Department, Ground Water Sample Results, Presbyterian Hospital Well, Albuquerque, New Mexico. December 8, 1998 (2 pages).
- New Mexico Environment Department, Ground Water Sample Results February 2002, Presbyterian Hospital Well, Albuquerque, New Mexico. June 24, 2002 (2 pages).
- US Geological Survey National Water-Quality Assessment Program, Hydrogeology, 2007-9, Water Chemistry and Transport Processes in the Zone of Contribution of a Public-Supply Well in Albuquerque, New Mexico, Scientific Investigations Report 2011-5182. (7pages).

43	Middle Rio Grande Conservancy District. Accessed on July 25, 2012 (3 pages). http://www.mrgcd.com/